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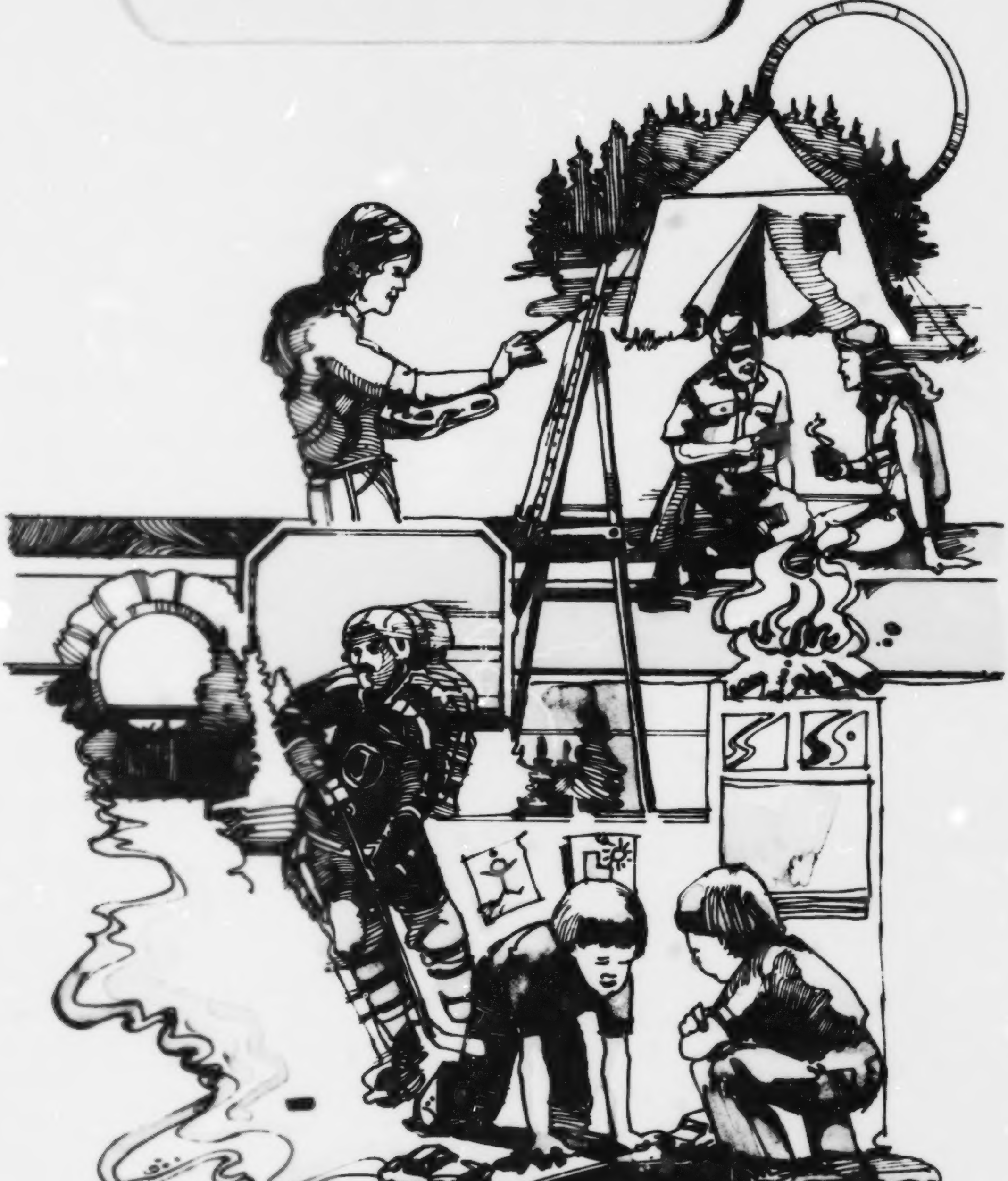

Alberta

RECREATION AND PARKS

A STUDY OF BARRIERS TO RECREATION PARTICIPATION

EXECUTIVE SUMMARY

Analysis of Data from the 1981
Public Opinion Survey on Recreation

Prepared By

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Prepared For

Alberta Recreation and Parks
Recreation Development Division
Planning Support Branch
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Acknowledgements

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A. INTRODUCTION

This Executive Summary presents a condensed description of the literature review, the main findings and recommendations from the analysis of data concerning recreational activities in which Albertans would like to participate but do not, the barriers to such participation, and socio-economic, demographic, and locational influences on these factors. The data are derived from the Public Opinion Survey on Recreation, 1981, which was mailed to a sample of 4700 Albertans, from which a response rate of 51.6% was achieved. Recommendations are based both on the specific results and on the broader implications of what is known about barriers to recreation participation.

The analysis sought to answer the following questions:

- in what activities would Albertans like to participate but currently do not?
- what is the relative strength and importance of barriers to participation?
- in what respect do Albertans who desire new recreational activities differ from those who do not?
- how do the effects of barriers vary between types of recreational activity?
- to what extent do desired activities and perceived barriers vary spatially across the Province of Alberta?
- in what ways do desired activities and perceived barriers vary between respondents defined according to socio-economic variables?

B. REVIEW OF LITERATURE

The review of literature was divided into three sections:

(i) A general introduction to variations in recreation preference and participation patterns;

(ii) Factors associated with non-participation in recreation; and,

(iii) An overview of findings that deal specifically with barriers to participation in recreation.

There is a large body of research which has examined variations in recreation preferences and participation, especially in relation to socio-economic variables, and which may indicate the presence of barriers. For example, the commonly-reported decline in outdoor recreation participation with advancing age may suggest declining physical ability among other factors, while low rates of participation among the poor may be indicative of severe economic barriers. Such research, however, merely indicates that obstacles may exist, and that their effects are perceived differentially among different segments of the public; it fails to show what indeed the barriers are, and how they vary between social groups and between various types of recreational activity. A thorough review of this class of literature was therefore not attempted; moreover, it has been summarized extensively elsewhere (for example, see Jackson, 1980; Kelly, 1980; Unkel, 1981; White, 1975; Zuzanek, 1978).

The literature review therefore addressed the interconnected topics of non-participation, reasons for non-participation, and barriers to participation and enjoyment. For example, Romsa and Hoffman (1980) examined differences in perceived barriers between upper and lower strata and between relatively active and inactive recreation groups; Witt and Goodale (1981) studied barriers to enjoyment (not participation) as a function of family stage; Boothby *et al.* (1981) reported on a variety of respondent's attributes related to ceasing participation in sports; and Francken and Van Raaij (1981) examined the socio-economic antecedents of relationships between barriers and leisure satisfaction.

A precise comparison of the barriers in these papers was not possible since items were not replicated and methods of data collection differed. Nonetheless, some strong similarities were apparent. Romsa and Hoffman (1980) examined four sets of reasons for non-participation, these being lack of interest, time, facilities, and funds. Witt and Goodale (1981) utilized 18 specific reasons for non-participation which included time, skills, money, and opportunity, as well as other "items . . . thought to be key motivational, decision-making, or attitudinal barriers to leisure enjoyment" (pp. 32-33). Francken and Van Raaij (1981) broadly distinguished between two sets of barriers, namely "external" (e.g., circumstances, lack of time and money, geographical distance, and lack of facilities), and "internal" (e.g., personal capacities, abilities, knowledge, and interests). Lastly, Boothby _et al_. (1981) identified 43 specific reasons for ceasing sports activity, which they classified into six main groups, these being loss of interest, lack of facilities, lack of fitness and physical disability, leaving a youth organization, moving away from the area, and no time to spare. Regardless of the precise nature of the variables under investigation, at least five sets of factors were fairly commonly reported in these studies - interest, time, money, facilities and opportunities, skills and abilities.

Non-participants may be sub-divided into two distinct groups, namely those who, for lack of interest, do not wish to participate, and those who wish to participate but for whom a barrier or combination of barriers temporarily or permanently restricts their participation. This distinction is useful for applied purposes, since it would be a waste of time and resources to try and generate enthusiasm among the uninterested (Boothby _et al_. 1981; Francken and Van Raaij, 1981). Instead, it would be more productive to address the second group of non-participants by concentrating on relaxing the efforts of obstacles. The present study focused on this group, by asking survey respondents if there was an activity in which they would like to participate but did not at the time of the survey; these respondents (presumably the uninterested) who did not specify such an activity were excluded from the analysis.

C. MAIN FINDINGS, IMPLICATIONS AND RECOMMENDATIONS

1. Desired Activities and Barriers

- 1240 respondents (51.1% of the sample) identified a recreational activity in which they would like to participate, but did not;
- 69 activities were listed, which were classified into nine activity groups plus an "other" group;
- In rank-order the desired types of activity were: (1) exercise-oriented activities excluding racquetball/handball and tennis (listed by 23.5% of the 1240 respondents desiring a new activity); (2) racquetball/handball (13.7%); (3) self-propelled and/or non-mechanized outdoor recreational activities (12.3%); (4) team sports (10.1%); (5) resource-based activities (hunting, fishing, camping, and mechanized outdoor recreational activities) (9.1%); (6) tennis (8.4%); (7) downhill skiing (7.4%); (8) creative-cultural, social and passive indoor leisure activities (6.5%); (9) golf (6.0%); (10) other (2.9%).
- The rank-order of barriers to participation was (1) work commitments (checked as "sometimes" or "often a problem" by 71.3% of respondents desiring a new activity); (2) overcrowding of facilities or arenas (64.4%); (3) lack of partners (58.1%);
  (4) lack of a close opportunity (57.5%); (5) family commitments (55%); (6) price of recreational equipment (53.2%);
  (7) admission fees and user charges (45.3%); (8) unawareness of where to participate in the activity (43.1%); (9) unawareness of where to learn the activity (31.8%); (10) shyness (29.4%);
  (11) price of gasoline (26.7%); (12) not having physical abilities (21.1%); (13) lack of transportation (17.6%); (14) not having artistic or creative abilities (16.8%); (15) being physically unable to participate (11.2%).

(i) Activities

Implications

Overall, people appear to desire participation in recreation activities, but a majority do not participate because of one or more barriers. The three most desired types of activity were 'exercise-oriented activities'; racquetball/handball; and 'self propelled and/or non-mechanized outdoor recreation activities'.

The literature would support these general findings, in whole or in part, with regard to the three most desired types of activity. However, a balanced and varied approach to activity provision must be maintained.

Planners, policy developers and managers must become aware of new focuses and trends in order to supply relevant and adequate opportunities for comprehensive service, and be prepared to discard obsolete programs.

In view of present economic conditions there is reason to believe that low-cost or no-cost activities will become increasingly popular. Equipment costs and proximity of activity to the user must also be considered.

As it was indicated that individuals have an increasing concern for their personal health and lifestyle, service providers must consider the provision of leisure education programs.

Interpersonal interaction appears critical to the provision of quality activities; there must be consideration of both mental and physical health.

Recommendations

- That recreation service providers undertake various types of needs surveys to determine actual desired activities.
- That recreation service providers develop a mechanism to identify obsolete programs so that they may be removed from the service repertoire.
- That recreation service providers be proactive with respect to the acquisition of current information and anticipate future trends in the provision of relevant and adequate opportunities for participation.

- That providers undertake constant examination of the overall recreation service to ensure a balanced and varied approach to service provision in the sense of both experiences and individual versus interpersonal participation.

(ii) Barriers

Implications

There appear to be two main types of barriers that were identified. The first focussed upon the individual, the second upon the service provider.

Recreation service providers have possibly become preoccupied with the 'things' (facilities, equipment) aspect of service delivery and have lost touch with the interpersonal components of participation.

There is a need to better understand services from the interpersonal aspect to ensure personal satisfaction for the individual, which is becoming increasingly important to clients. Possible avenues that might be explored to achieve this include re-examination of what the server role entails; a thorough understanding of that role by the recreation provider; and a re-commitment of the policy developer, the planner and the manager to undertake concerted efforts to make personal contact with clients as individuals.

In light of Canada's new Constitution and in particular, the Canadian Charter of Rights and Freedoms contained within this document (The Canadian Constitution, 1981), the public servant will have to become concerned not only with the jurisdiction of service provision but also the content of that service.

If recreation service providers wish to provide appropriate, meaningful service, such avenues as the administration of needs surveys via personal contact with specific groups will allow the interface with clients that is desirable.

It is also necessary for providers to fully understand all facets of each barrier and develop services that attempt, as comprehensively as possible, to overcome barriers for all clients.

Recommendations

- That recreation service providers undertake studies that will identify possible barriers to recreation participation within their authority.
- That these studies be approached from the point of view of identifying barriers that are unique to the service provider and those that are unique to the client groups of that particular service authority.
- That recreation service providers review the orientation of their service provision with respect to the emphasis placed upon facilities versus programs. Personal satisfaction of the individual must be ensured through programs and efforts to increase interpersonal interaction and reduce alienation toward the provider by the client.
- That recreation service providers familiarize themselves with the role of the service provider in relation to client rights to recreation services.

2. Respondents Desiring and Respondents Not Desiring a New Activity

- there was an increasing lack of interest in a new activity with advancing age and with increasing length of residence in Alberta;
- there was an increasing desire for a new activity with increasing levels of education and income;
- the lowest levels of desire for a new activity were expressed by respondents aged 45 and over, those who had not completed high school, those with an annual family income of less than $10,000, and those resident in Alberta for ten years or more;
- the greatest interest in a new activity was expressed by respondents aged up to 34, relative newcomers to the Province, university-educated respondents, and those with an annual family income exceeding $10,000.

Implications

The recreation service delivery system must examine its offerings to determine if there is appropriate and adequate provision for the aging population. Simultaneously it is necessary to provide more adequate service for the very young so that participation in recreation will start at a young age and continue throughout life.

The service provider must consider the dynamic nature of lifestyle through the various stages of the life-cycle. It must be questioned whether one strata of the population (namely the middle class) is receiving the majority of the recreation service.

The overall consideration is that socio-economic/demographic information is very important to understanding the needs and desires of individuals and that it is imperative for recreation service providers to be aware of demographic information with regard to the populations that they are serving. It is also necessary to look at future socio-economic/demographic trends for future planning and service.

Recommendations

- o That recreation service providers develop and update socio-economic/demographic profiles with regard to their client groups for both present consideration and future planning of services.
- o That recreation service providers determine the socio-economic/ demographic characteristics of those client groups who are actually being served by their programs.
- o That the general population profile and the actual population profile of the clients receiving services be compared to determine populations that have not been receiving adequate services.
- o That populations that show particular non-involvement, or a lesser degree of involvement than other populations, be considered for in-depth study to attempt to determine if there are specific barriers to participation for these groups.

3. Activity-Specific Barriers

The most important barriers corresponding to each type of activity were as follows:

- exercise-oriented activities: work commitments, overcrowding, lack of opportunity, lack of partners;
- racquetball/handball: work commitments, overcrowding, lack of opportunity, lack of partners, admission fees and user charges;
- self-propelled activities: equipment costs, work commitments, lack of opportunity, lack of partners, family commitments;
- team sports: work commitments, overcrowding, lack of opportunity, lack of partners, unawareness of where to participate;
- resource-based activities: price of gasoline, equipment costs, work commitments, overcrowding, lack of opportunity, lack of partners;
- tennis: work commitments, overcrowding, lack of opportunity, lack of partners, shyness;
- downhill skiing: work commitments, equipment costs, fees and charges, price of gasoline, overcrowding, lack of transport, not having physical abilities, family commitments;
- creative-cultural, social, and passive activities: work commitments, lack of opportunity, unawareness of where to participate, unawareness of where to learn the activity, lack of artistic or creative ability, equipment costs.
- golf: work commitments, overcrowding, equipment costs, family commitments, fees and charges.

Implications

Although the literature did provide some indication as to barriers that surround certain activities, it was not exhaustive or conclusive. It did, however, give some indication to the service provider of the obstacles that would have to be considered in undertaking the provision of particular activities.

The provider must be willing to examine and change where needed, those approaches which have been traditional and stereotyped in the provision of recreation services.

Recommendations

- That, once barriers to recreation participation are determined, in-depth analysis occur in order to fully understand all the facets of barriers as well as the many different ways that individuals view barriers.

- That recreation service providers determine what particular barriers might be prevalent in relation to the provision of certain activities, based on the clientele of that authority.

4. Regional Variations

- No substantial or important regional differences were discerned, either in desired activities or the effects of barriers to participation.

Implications

Although for this study, this particular topic did not result in data which were statistically significant, it should not be dismissed totally. There is some indication in the literature that region could have some bearing particularly with respect to supply considerations.

Recommendation

- That recreation service providers be cognizant of possible regional variations in desired activities and barriers in relation to supply.

5. Socio-economic Differences in Desired Activities and Barriers

- respondents aged 24 or less most desired exercise-oriented activities, racquetball/handball, team sports and self-propelled activities, and were more inhibited than others from participating by lack of opportunity, partners and transportation, and unawareness of where to learn the activity;
- respondents aged 25 to 34 most desired exercise-oriented activities, racquetball/handball, self-propelled activities, and team sports, and were more inhibited by family commitments and lack of partners;

- respondents aged 35 to 44 most desired exercise-oriented, self-propelled and resource-based activities, and racquetball/handball, and were more inhibited by family and work commitments;
- respondents aged 45 to 64 most desired exercise-oriented activities, golf, self-propelled, creative-cultural, social and passive activities, and were more inhibited by physical and artistic ability;
- respondents aged 65 or over most desired exercise-oriented activities, golf, and creative-cultural, social, passive and resource-based activities, and were inhibited by a large number of barriers including physical and artistic ability, being physically unable, lack of partners and transportation, price of gasoline, and unawareness of where to learn or participate in the desired activity;
- both males and females ranked exercise-oriented activities as the most desired. Men preferred golf and resource-based activities more than women, whereas women preferred tennis and creative-cultural, social, passive and self-propelled activities more than men;
- the only barrier felt more severely by males than by females was work commitments; all other barriers for which there was a statistically significant difference were felt more severely by females than by males;
- there were no substantial or significant differences in desired activities between sub-groups of the sample defined on the basis of their education, income, type of household, size of household, or length of residence in Alberta;
- the least educated group and respondents with an annual family income of $10,000 or less felt all barriers for which there were statistically significant differences more severely than other respondents, and there were recognizable declines in the effects of barriers as levels of education and income increased;
- couples without children were the least affected by all barriers than any other type-of-household groups, and the only barrier felt

more severely by couples with children than by others was family commitments;

- the most disadvantaged type-of-household group was composed of respondents from single-parent families, who felt almost all barriers for which there were statistically significant differences more severely than other groups;
- there were no substantial differences in perceived barriers according to respondents' size of household;
- the only meaningful difference in perceived barriers by length of residence was unawareness of where to participate in the desired activity among relative newcomers to the Province.

(i) Age

Implications

The results lend support to the importance of family life-cycle with respect to barriers to recreation participation. The recreation service provider must be cognizant that the family and its welfare are of high priority to the age group twenty-five to approximately forty-five.

The age group of forty-five years and over indicated abilities and physical inability as barriers. The literature again supports these findings but also indicates that there may be an over reaction and possible myth as to the frailty of the older person.

For the service provider it is important to know the age breakdown of those individuals partaking of programs on a continual basis. With this information, the provider can start to determine if the services are comprehensive in the sense of serving all age groups and also start to deal with specific needs of the various ages. It would also be very important to obtain age profiles of the service area to determine if one age group is over represented and to relate this to the provision of services. There may be a need for more programs for one age grouping should this be so.

Recommendations

- That recreation service providers review services in relation to the age of clients served to determine if there are age gaps.

- If age gaps are found, they should be reviewed in relation to possible barriers to participation as perceived by these individuals.

(ii) Sex

Implications

There appears to have been a change recently with regard to male/female participation and barriers which affect that participation. An indication was given that the females might differ in some of the activities selected, but have the same satisfaction as the male. Perhaps as the female becomes more involved in her own lifestyle, her participation will not differ from the male. Also, work commitments of the female might become a more significant barrier when careers are considered.

It is important, therefore, to be aware of the individual and his or her needs and not project that what is provided for males is what females will necessarily require to meet their needs. Likewise, it is important for males to be free to determine their program needs on an individual basis and not to be placed in stereotyped activities prescribed for males.

It might be possible to target market programs to further involve females. However, there is the caveat that target marketing aimed at a specific group should not jeopardize the principle of provision of services to meet the needs of the individual.

Recommendations

- That recreation service providers examine their service provision and determine if there is adequate opportunity for participation of both sexes.
- If discrepancies in opportunity exist, they should be reviewed in relation to possible barriers to participation as perceived by these individuals.

(iii) Education

Implications

Once again, the literature is consistent with the findings of this study and gives some further evidence as to the importance of education in understanding barriers to recreation participation. It is important that recreation service providers determine whether or not their services are accommodating the range of education levels and that barriers, or facets of those barriers which exclude potential participants on the basis of education, be streamed out.

When services are advertised to the public, they must be presented in such a way that all educational levels can understand their possible benefits.

Advertising of services must attempt to educate the public and expose individuals to new experiences from which they may gain satisfaction.

There is some indication that leisure education might have a contribution to make with regard to reducing the disparities in recreation participation based on education level. The potential for effective leisure education programs is great if they can be placed within the recognized education system at levels where attendance is compulsory.

Recommendations

- o That recreation service providers examine their services to determine if they are merely serving the more highly educated members of the population.
- o If discrepancies in opportunity exist, they should be reviewed in relation to possible barriers to participation as perceived by members of the lower education groups.

(iv) Income

Implications

It is indicated in the study results and the review of literature that higher income groups feel fewer barriers to recreation participation.

It would seem that the service provider has to become aware of the recreation needs of lower income groups in relation to the barriers they are experiencing, such as cost, skill, and logistics (Levy, 1977). Providers also must determine the income strata of the clientele actually being served by present service.

The marketing and the promotion of programs must also be examined.

Those involved in the development of policy regarding fees and charges must avoid the creation of a welfare class of lower income citizens.

Leisure education may also have a role in influencing the leisure lifestyle of lower income groups as well as creating an awareness of the range of recreation opportunities.

Recommendations

- That recreation service providers examine if their services adequately accommodate all income strata. This could be accomplished by determining the economic situation of the population of the community in relation to those actually utilizing recreation services.
- If discrepancies exist, then the providers should determine what barriers, or portions thereof, are restricting recreation participation.
- That recreation service providers review fees and charges policies and other policies that influence restriction by income. There must then be a move to make these policies compatible with the provision of services for all people.

(v) Type of Household

Implications

There appears to be a need for better understanding of the family life-cycle and its importance in influencing barriers to recreation participation. The service provider should examine barriers in relation to not only the traditional view of the family, but what is happening presently and what is projected for the future with regard to the family and its composition. It would seem that providers must be aware of the changes in family composition and respond accordingly with appropriate opportunities.

Service providers must create a more positive and accepting setting for the non-traditional groupings which occur, and the term household must be considered from the true sense of household and not family.

To this end, the definitions of family, household, etc. used on such documents as user fees and charges policies should be considered very carefully.

Recommendations

- o That recreation service providers understand the relationships between type of household and the effect of barriers with respect to recreation participation.
- o That recreation service providers review barriers in relation to the non-traditional view of the family in order to identify gaps in service provision for such populations as singles, single parent families, and so on.

(vi) Size of Household

Implications

Although there was no statistically significant relationship between this variable and barriers to recreation participation, the review of literature does suggest the possible importance of this factor.

Service providers should be cognizant of trends with regard to the size of household of the clients they serve. This particular factor has some potential to affect participation as well as barriers to participation.

Recommendation

- o That recreation service providers should be cognizant that size of household has the potential to influence barriers connected with participation.

(vii) Length of Residence in Alberta

Implications

The barrier of most importance to relative newcomers to the Province was that of not knowing where to participate. Thus, this barrier becomes very important in terms of an individual feeling of alienation and its inter-relationship with barriers such as 'it is difficult to find others to participate with' and 'shyness'. There is potential for more rapid involvement of newcomers to the province, which can also be enhanced by target marketing to this segment of the population.

In addition, the potential of assimilating newcomers to Alberta more quickly than they are at present may possibly alleviate some of the social problems experienced by this province.

There also has to be an attempt made to find new market potentials. The recreation service provider should attempt to assess how many new users are brought into programmes compared to the number of regular users.

Recommendation

- That recreation service providers identify newcomers to the Province of Alberta in order that they might be made aware of what services are provided and with whom they might participate.

D. GENERAL RECOMMENDATIONS

- It is recommended that recreation service providers seriously consider the undertaking of leisure education programs in conjunction with: school authorities, especially those working with the younger, compulsory school-aged population; employers, in particular those dealing with the issues of pre-retirement and those offering leisure lifestyle counselling; and service providers working in the area of rehabilitation. These are but a few of the population groups that could be addressed in the initial stages of leisure education programs.

- It is recommended that the recreation service provider acquire the necessary marketing skills and understanding of marketing concepts through extension programs, universities, colleges, business schools, etc. In addition, there should be the acquisition of further knowledge of the human service system of recreation by the provider in order to apply these marketing theories and techniques most effectively to reduce the barriers to recreation participation, while keeping in mind the fulfillment of the individual and his/her positive functioning within society. Leisure education could be the focus of a comprehensive marketing program which could combine the fulfillment of individual needs through recreation while simultaneously making the service provider a viable and relevant entity as a partner in this process.

E. STUDY RECOMMENDATIONS

- A follow-up study should be conducted based on a more comprehensive range of questions and response categories, defined with a clearer articulation of the essential concepts than in the present study;
- future studies should have a sufficiently large sample size to permit a multi-variate analysis of the data;
- the focus of interest should be broadened to include barriers to recreational enjoyment; and,
- in-depth interviews with representatives of disadvantaged groups should be conducted.

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Alberta

RECREATION AND PARKS

A STUDY OF BARRIERS TO RECREATION PARTICIPATION

Analysis of Data from the 1981
Public Opinion Survey on Recreation

Prepared by

E. L. Jackson and V. W. Blakely

Prepared for

Alberta Recreation and Parks
Recreation Development Division
Planning Support Branch

May, 1983

FORWARD

The original contracted report A Study of Barriers to Recreation Participation was prepared for the Planning Support Branch, Recreation Development Division, Alberta Recreation and Parks Department by the co-authors, Dr. E.L. Jackson and V.W. Blakely, with the support of B.L. Neri as research assistant. The Planning Support Branch has exercised some editorial perogatives in making adjustments to style and format for consistency purposes.

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A STUDY OF BARRIERS TO RECREATION PARTICIPATION

PREFACE

The Public Opinion Survey (1981) was the third in a series of studies conducted by Alberta Recreation and Parks to examine various aspects of recreation in the province. The survey questionnaire was sent to a random sample of 4700 Albertans and responses were received from 2425 individuals or 51.6% of the sample.

During the development phase of the survey it was recognized that information about barriers to recreation participation would be useful at all levels of parks and recreation service. As a result, several questions relating to desired recreational activities and barriers to participation were incorporated into the questionnaire.

This study focuses on the analysis and interpretation of survey results related to these two issues. In addition, the relationship of socio-demographic and locational variables to desire for activities and barriers is examined.

Part I of the report presents an overview of literature pertinent to the topics of non-participation and barriers to recreation participation. The analysis and interpretation of results is presented in Part II. Part III provides a summary of findings, implications, and recommendations for the service provider. Study considerations, including a general discussion of the study and study recommendations, are addressed in Part IV.

PART I

REVIEW OF LITERATURE

The review of literature has been divided into three sections:

(i) A general introduction to variations in recreation preference and participation patterns;
(ii) Factors associated with non-participation in recreation; and,
(iii) An overview of findings that deal specifically with barriers to participation in recreation.

The review of literature on barriers and related factors suggests an organization of the findings into groupings as in the model presented in Figure 1. The model suggests that the general public may be segmented into two broad categories on the basis of "participation" or "non-participation" in leisure activities.

There is a body of research which examines variations in recreation preferences and participation patterns and indicates the presence of barriers, but makes no specific reference to barriers or their causal factors. Therefore, the literature review in this report focuses mainly on the research concerned with "non-participation", with a further subdivision of non-participants into two general categories. The first group of non-participants are those who simply state no interest. The second group consists of individuals who may wish to participate, but for whom a variety of barriers either of a personal or external nature restricts their participation.

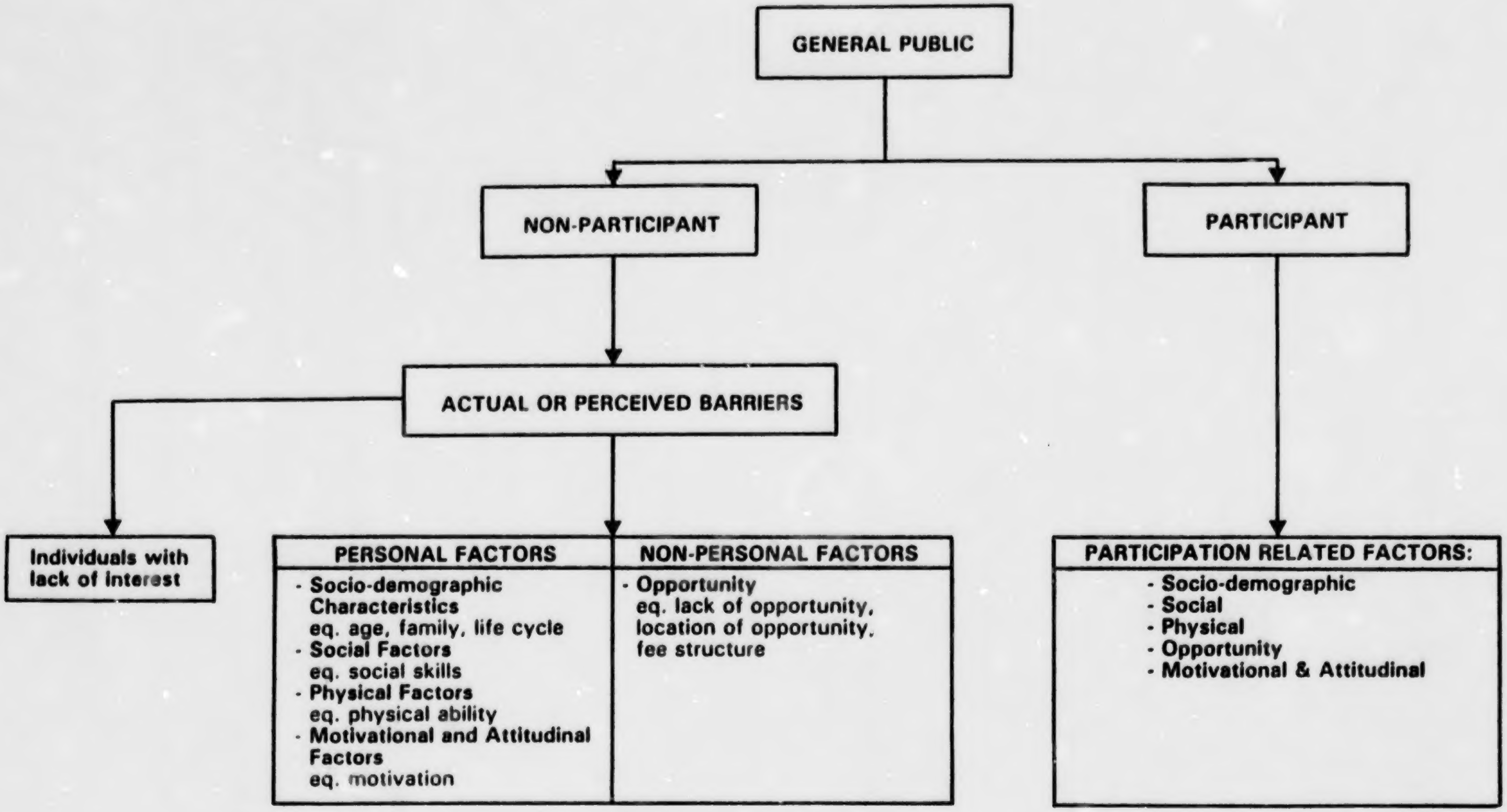
GENERAL PUBLIC
NON-PARTICIPANT
PARTICIPANT
ACTUAL OR PERCEIVED BARRIERS
Individuals with lack of interest
PERSONAL FACTORS
- Socio-demographic Characteristics
eq. age, family, life cycle
- Social Factors
eq. social skills
- Physical Factors
eq. physical ability
- Motivational and Attitudinal Factors
eq. motivation
NON-PERSONAL FACTORS
- Opportunity
eq. lack of opportunity, location of opportunity, fee structure
PARTICIPATION RELATED FACTORS:
- Socio-demographic
- Social
- Physical
- Opportunity
- Motivational & Attitudinal

Figure 1.

Recreation Preference and Participation Patterns

Variations in recreation preference and participation patterns have been extensively documented in the recreation literature, particularly in relation to socio-economic factors, (for example, Jackson, 1980; Kelly, 1980; Unkel, 1981; White, 1975; Zuzanek, 1978). Several of these relationships were summarized by Zuzanek (1978) in his examination of leisure participation patterns and social differences. They included:

- overall rates of participation between men and women were almost equal;
- women appeared to be more involved in cultural activities while men were more likely to participate in outdoor recreation, active sports, sport spectatorship and home gardening;
- non-working women appeared to have slightly higher participation rates than employed women;
- women participated in a fewer number of activities than men;
- rates of participation declined with age;
- more strenuous activities had a greater decline in participation with advancing age;
- activities which were relatively stable with regard to age were opera attendance, reading, t.v. watching, and working around the house;
- generally, participation increased as education increased, although this trend was reversed somewhat at the highest levels of college education;
- participation was related to one's occupation and social status, with professionals participating in a wider spectrum of activities and at higher rates than other occupational groups; and,
- compared to other socio-economic variables such as sex, age, and occupation, formal education appeared to be the best predictor of participation in leisure.

Similarly, Kelly (1980:146) summarized patterns related to outdoor recreation participation. He noted that:

- age is strongly and inversely related to activities requiring physical strength. Younger persons are far more active in demanding sports;

- family income affects only a few activities that have relatively high cost thresholds;
- sex is related to activities that have historically been identified with masculinity, such as hunting. On the other hand, tennis, swimming, bicycling, and social activities show no sex differences; and,
- higher education levels are moderately related to increased participation in sailing, golf and cross country skiing. Persons with slightly lower education levels are somewhat more likely to engage in snowmobiling. Outdoor recreation seems to be less education-related than cultural leisure.

These observed variations in recreation participation patterns may indicate the presence of actual or perceived barriers which affect certain sub-groups of society more consistently than other groups. However, such research fails to identify what these barriers or obstacles are, and how they vary between social groups and between various types of recreational activities.

Non-Participation in Recreation

A clearer understanding of potential barriers to participation comes from studies which have looked at non-participation factors.

Perrin (1979) categorized the factors that had a bearing upon participation and non-participation as: activity variables; demographic variables; and motivational and attitudinal variables, as follows:

1. Activity Variables
    1. type of activity;
    2. season of activity;
    3. location of activity;
    4. availability of others with whom to participate;
    5. amount of activity (active vs. inactive, frequency); and
    6. when regular activity initiated.

2. Demographic Variables
    1. sex;
    2. age;
    3. location; and
    4. socio-economic status.
3. Motivational and Attitudinal Variables
    1. desire to increase activity (all);
    2. desire to initiate activity (inactive individuals);
    3. reason for activity;
    4. reason for inactivity;
    5. general attitudes re activity; and
    6. awareness.

The Ontario Ministry of Culture and Recreation (1981 b) looked at those individuals who expressed an interest but had done little participation in physical fitness activities. People were classified into three groups: current participants included Casuals and Beginners, while the third group, the Planners, included those who were planning to start a program in the next two months. This latter group had fewer children and were from lower education brackets. They viewed physical activity as a duty rather than as something that might be fun.

The reasons frequently given for inactivity included lack of time, fatigue, inadequate facilities, lack of knowledge of fitness, and lack of willpower. Lack of time was usually associated with activities people did not enjoy. Fatigue was usually attributed to mental fatigue and the need to overcome inertia. Inadequate facility complainants indicated that there was either an inconvenient location, or that decor, cleanliness, or operations were not appealing. In the area of knowledge about fitness, people often had vague ideas about the amount or type of activities they should engage in to keep fit. Some used even minor disabilities or handicaps as reasons for not participating in any activity. Those in the age group of fifty or over tended to consider themselves to be fragile. Willpower affected eighty percent of the population who indicated they had once started a physical fitness program and then quit. Reasons for quitting were lack of time, boredom, health problems, and termination of an organized program.

Ragheb (1980) examined leisure participation, satisfaction, and attitudes and generally found that individuals who had experienced dissatisfaction in leisure could not be encouraged to participate. The individual wanted to obtain satisfaction from the activity by using his abilities. However, a person may have chosen a less satisfying activity because of availability, rather than develop the necessary skills for a more meaningful activity.

When examining family life cycle, Owens (1970) found that families with children under ten had low overall participation. Family participation was high when the family was first formed by marriage, but then dropped off as children were born. Participation increased as the children matured, then declined gradually. Overall participation rates of single persons and unrelated individuals living together were below average.

Morris et al. (1972:29), in their investigation of participation in public recreation in the rural setting reported that the higher the occupational level, the more probable that the individual would make use of available public recreation services. Reasons suggested by the authors for non-participation of lower occupational levels were:

- the recreational activities offered had greater intrinsic appeal to the upper occupational categories;
- persons of the lower occupational levels were not as well informed about the program offerings;
- the lower occupation categories were less interested in organized recreation; and,
- the lower occupation categories did not like to enter into mixed occupational groupings.

Moyer (1977) examined participation of children in an urban centre and found that: (i) minority students were reluctant to participate in the intramural programme, (ii) sixth graders, regardless of ethnic background were reluctant to participate and, (iii) girls at all grade levels, regardless of ethnic background, had a low percentage of participation. The reasons for minority students not participating were alienation from the total school population and skill alienation. The second group, sixth graders of all ethnic backgrounds, felt they did not have adequate physical development and motor skills and could not compete with older more developed students. It was determined that extremely dominant behaviour of a few girls discouraged other girls from participation.

In another study of a student population, Hutslar (1972: 64) examined college athletic non-participation and indicated the following reasons for lack of participation:

- lack of time;
- studies more important;
- commute to school;
- work;
- sports are not promoted enough;
- do not come to campus every day; and,
- sports take too much time.

Further understanding of factors contributing to non-participation comes from research which has examined reasons for ceasing participation in recreational activities. In a study of adherence in fitness programmes, Wanzel and Danielson (1977,I) indicated several reasons for withdrawal, with the three most important being overcrowded workouts, inconvenient location of facility with respect to work or residence, and interference of program with the daily routine. Other reasons for withdrawal were "(the) workout program, locker room, instructors, family attitude, supervisors' attitude, fellow workers' attitude, equipment, injury, and medical problems" (p. 18).

Franklin (1978) identified several negative forces which were factors in ceasing participation. These were:

- inadequate leadership;
- time inconvenience;
- musculoskeletal problems;
- exercise boredom;
- individual commitment;
- lack of awareness of progress; and,
- spouse and peer disapproval.

Orlick (1974) examined young athletic drop-outs and found the following reasons for dropping out:

- the programme: too serious, not enjoyable, emphasis on winning;
- the coach: leaves people out, pushes too hard, criticizes too much;
- time demands: conflict with other life pursuits such as jobs, social life, and school;
- greater interest in other areas of sports; and
- injuries.

Elementary school age children in the study stated that competition was the main reason for dropping out. This was expressed as a lack of playing time (e.g., always being an extra, never getting in the game) and by a lack of exposure to success (e.g., not good enough, always strike out, not fun, never get the puck). These situations led to feelings of worthlessness, non-acceptance and unhappiness. The most important thing was to play together and have fun. Following a negative experience, it was difficult to encourage a child to become involved again. This effect was also noted in adult non-participants who had had negative experiences as children.

Boothby et al. (1981:67), in their study concerned with reasons for ceasing participation, indicated that the six most important categories of reasons, in the order of mention were:

- loss of interest;
- lack of facilities;
- not being physically fit and physical disability;
- leaving a youth organization;
- moving away from the area; and
- no time to spare.

Basically, most reasons for ceasing the activity were related to two types of changes: (1) the physical ability of the individual and, (2) the relationship of the individual and the sporting environment.

Barriers to Recreation Participation

This section of the literature review examines research related to the study of barriers to recreation participation. These studies have attempted:

i) To identify the relative importance of various personal and external factors as common barriers to recreation participation;

ii) To determine if specific barriers affect certain segments of the population more strongly than others, by examining the relationship of socio-demographic variables such as age, education, and income to these barriers; and,

iii) To suggest barriers which may affect participation in specific activities.

Overview of Barriers-Related Research

A general overview of barriers can be obtained from the following studies. These studies indicate the range of barriers to recreation participation which may occur, and suggest that both internal/personal factors and external factors must be considered. Following a general discussion, each of these types of factors is examined in greater detail in subsequent sections.

Miller (1979), in The Australian Journal for Health, Physical Education and Recreation, indicated that:

- factors such as lack of funds, availability of facilities and transport, geographical location, building design, social attitudes and customs are examples of potential restrictions...(p. 25) that did not allow people to be involved.

Further barriers to participation were defined as:

- characteristics one may possess, such as physical, mental, social and psychological restrictions. Shyness, a low self concept, poor vision or hearing are examples of these restrictions...(p. 25)

Francken and Van Raaij (1981), in examining leisure time activities and individuals' satisfaction, looked at "internal barriers such as personal abilities, capabilities, knowledge and interests, and external barriers such as lack of time and of money, geographical distance and lack of facilities..." (p. 341). They also focussed upon socio-economic factors and their relation to satisfaction with amount of time spent on leisure pursuits. People with low satisfaction tended to be younger, pessimistic in outlook and indicated internal barriers as stopping their participation. In contrast, people who indicated moderate satisfaction with their amount of leisure time tended to view external barriers as the main problem for participation in leisure activities.

Harvey (1977), in discussing barriers to participation, also stressed the importance of examining both internal and external indicators. The potential barriers considered by Harvey included amount of discretionary time and the role of work, as well as socio-economic, socio-demographic, physiological and psycho-social constraints. Planning and promotion factors related to the provision of services, were also addressed.

The 1981 study by the Ontario Ministry of Culture and Recreation also documented several limiting factors to participation, including: lack of time; lack of money; poor health; advancing age; small children in the family; lack of or dissatisfaction with facilities; scheduling conflicts; and, lack of adequate transportation.

As indicated in the preceding overview, many factors have been reported as barriers to recreation participation, including both personal and external contraints. The following discussion of personal barriers focuses on such factors as lack of time due to work, family, and other commitments, as well as social, psychological, physical, and socio-economic constraints. External barriers addressed in a subsequent section include contraints such as lack of transportation, price factors, and barriers associated with the provision of recreation services.

Personal Barriers to Recreation Participation

This section focuses on personal factors which have been reported as potential barriers to participation in recreation. Research which has identified socio-demographic variables associated with these barriers is also presented.

i) The "Lack of Time" Barrier

The "lack of time" barrier represents one of the most common themes in the literature on barriers to participation and is therefore addressed separately from other personal and social variables. Work and family commitments are major factors in contributing to lack of time for recreation participation, and may affect an individual's freedom to participate (Goodale and Witt, 1979).

Bricklin (1978) indicated that the "I just don't have time" excuse seemed to be the predominant reason for non-participation. He suggested that it was not that people did not have enough time, but that they needed to rearrange their schedules to eliminate unnecessary activities and make time for fun. People had a tendency to keep promising themselves to pay more attention to their needs and desires which somehow ended up last on the list of things to be done.

Owens (1970) found the most important leisure time factors to be: number of hours in the work week, time traveling to and from work, and head of household commitments. Overall family participation was related positively to hours of the work week and leisure time committed to school, church, and civic activities; people active at work and civic affairs were also likely to be more active in outdoor recreation. As more time was spent traveling to and from work, participation rates decreased.

Variations in the amount of discretionary time available for leisure pursuits for different socio-demographic groups were examined by Zuzanek (1978). He noted that:

- generally, women have less leisure time than men;
- non-working women have more leisure time than working females;
- the largest amounts of leisure time appear to be concentrated at the poles of the age continuum, i.e., in adolescence or after retirement, while middle age groups live under considerable time pressure; and,
- the relationship between education and the amount of free time appeared to be positive for women but varied for men, with more leisure time associated with both low and high levels of education.

Witt and Goodale (1981) examined family stages and barriers to leisure enjoyment. One group of barriers, namely "not enough free time" and "family obligations", increased in importance during the entire child-rearing period and affected women more readily than men.

The effect of more leisure time was assessed by Conner and Bultena (1979) who examined the four-day work week. They found that the reduction of the work week did not increase the amount of leisure time spent in activity but rather increased the number of activities that were experienced. The four-day work week enhanced the diversity of participation but not frequency.

Seltzer and Wilson (1980) in their examination of the four-day work week, found that when the work week was rearranged, the activities which increased the most were "home centered relaxation and active at home factors" (p. 125).

ii) Social and Psychological Barriers

Several articles were found in the literature which related to the barrier "shy about participating in public". For example, Pilkonis (1977) examined behavioral consequences of shyness and found that the shy and not-shy populations differed in verbal behaviour and affect. Shyness was expressed differently by males and females and was found as a common characteristic of university students.

Cheek and Buss (1981) examined shyness and sociability. Sociability was defined as wanting to be with people, and shyness as being uncomfortable or inhibited in that social interaction. It was found that the person who was sociable tended to be "slightly higher in public self-consciousness and self esteem" (p. 33). Shy people tended to be "slightly higher in public self-consciousness, lower in self esteem, and higher in fearfulness" (p. 33).

Barefoot et al. (1981) found that privacy and sociability was "an important dimension of leisure activity choice" (p. 309). The findings of Gunn (1982) indicated that the most valued aspect of leisure, and the peak leisure experience, was that of relationships. Three out of four people wanted the company of significant persons in their leisure and the actual leisure activity or object was not as important to the peak experience. Only 15% of the respondents participated in leisure for its intrinsic value (pp. 21-22).

Goodale and Witt (1979) found that another important factor in determining barriers was whether people felt they were in control of their own lives or controlled by external forces. Those who felt they were not in control tended to rate a higher number of barriers as a deterrent to participation. The four barriers that were not associated with locus of control were: (1) lack of time; (2) family obligations; (3) work; and, (4) limiting expectations of family and friends. It was also noted that the greater the political and community alienation of the individual, the greater the problem there was with the barriers.

Research on life cycle stages and barriers by Witt and Goodale (1981) found that the importance of certain psychological barriers varied with socio-demographic characteristics: one grouping of barriers, "family and friends' expectations" was felt more acutely by women than men and tended to increase during the life cycle; "Feelings of daily stress" were expressed equally by men and women and increased over the life cycle. The barrier of "often (feeling) like not doing anything" had its most dramatic increase once the children had left home and adults had fulfilled their essential parenting and support functions.

iii) Socio-Demographic and Life Cycle Factors

Harvey (1977) noted that sex typing often constituted a barrier, as certain activities, roles and interests were traditionally assigned to the male or female. She also examined barriers related to age, and found that, at certain ages, there were accepted roles and associated stereotyped recreation activities (e.g. children and play).

Lack-of-time barriers associated with family obligations appeared to be most important during the parenting stage (Witt and Goodale, 1981). The psychological and social barriers reported in the previous section were particularly salient for women, and became increasingly important over the lifecycle. Both males and females seemed to experience diminishing motivation for activity after the child-rearing stages. Problematic barriers for families with children under six years of age and over eighteen years of age were identified as:

- not being sure what activities to be involved in;
- not knowing what is going on or what is available;
- not being sure how to use available resources;
- difficulty in planning and decision making;
- having nobody to do things with;
- not being at ease in social situations; and,
- difficulty in carrying out plans.

Once children were at school, the parents were more aware of opportunities and what to do due to increased contact with the community. It appeared, though, that this awareness declined when children left home.

iv) Physical Barriers

Perceived or actual lack of physical ability may also present a barrier to some segments of the population. Witt and Goodale (1981) identified that barriers such as "not feeling fit enough to get involved" and "not having the physical skills" increased with advancing age. The Ontario Ministry of Culture and Recreation (1981) found that for those who were active less than four times a month, some indicated they were physically unable and these respondents were mainly over fifty years of age. Some reported that they had tried but could not keep up with the exercise group. Males, in particular, felt that they had no need for physical activity.

v) Barriers for Special Populations

Particular barriers that may affect special populations have also been studied. For example, Hutchinson (1980:9) examined perceptions of disabled persons regarding barriers to community involvement. The results, in order of importance, were as follows:

- Low pensions and unemployment combined with high costs;
- Lack of legislation to ensure equal rights and access to community services and resources;
- Inconvenient and inaccessible facilities;
- Disabled persons' lack of awareness of rights and resources;
- Lack of continuum of services which would enable participation at a variety of levels;
- Lack of inclusion of disabled people in planning and policy decisions which affect their lives;
- Lack of information on available services;
- Lack of self-confidence;
- Negative attitudes and misconceptions which lead to discrimination;
- Social and physical overprotection by family, friends and others;
- Low personal and social skills;
- Inadequate support services e.g. counselling, volunteer programs, advocacy;
- Poor coordination and cooperation between various levels of services (p. 9).

Harvey (1977) noted that barriers of a physiological nature must be taken into account since these barriers greatly affected those groups considered as special populations (aged, alcoholic, physically disabled, mentally ill, etc.). These populations were affected by many barriers such as isolation, lack of income, dependence, restricted mobility, and facility and program accommodation.

vi) Socio-Economic Barriers

Zuzanek (1978) has provided an overview of social differences in leisure spending. He stated that expenditures in leisure correlated strongly with being married, in the younger or middle-aged categories, and having children. Although the proportion of income spent on leisure increased with socio-economic standing, it seemed to decline for the highest income level. He concluded that ..."if measured in dollars spent for recreation, social inequalities in leisure behaviour appear to be rather steep" ...although the stratification pattern is less clear if differences in the leisure expenditures are measured as a proportion of disposable income.

Different socio-economic groups may be affected by different types of barriers. Levy (1977), in an examination of two socio-economic groups and free time activities, indicated that both lower income groups and upper income groups felt constrained by time. The lower income group indicated cost and skill as reasons for non-participation, whereas the higher income group indicated poor facilities as hindering participation. Berkeley (1966) examined the economics of recreation and indicated that approximately one third of all families had low incomes (less than $4000.00 per year). This then meant that there was little disposable income for recreation, and to compound this, many had insufficient education to enable them to enjoy or desire new recreation experiences.

Corsi and Harvey (1979) examined the price of gasoline as a factor in vacation patterns. The younger heads of households and those with small children seemed to be the group most negatively impacted by higher fuel prices.

Non-Personal or External Barriers

i) Opportunity Barriers

Municipal factors related to the provision of recreation opportunities were examined by Reid (1979) who focused on barriersrelated to the initiation of recreation programs.

Barriers of concern were:

i) the attitude of municipal councillors towards the importance of recreation as a municipal service;
ii) councillors' attitudes towards cooperating with other municipalities for recreation purposes;
iii) councillors' psychological need to maintain control of their

functions or jurisdictions; and,

iv) whether or not rural/urban affiliations of councillors play a role in the process (p. 30).

The findings were as follows:

- at the time of the study, municipal councillors displayed a positive attitude towards the importance of recreation as a municipal service although there was room for improvement in attitude;
- there was willingness to cooperate with neighboring councils but work was required in order to improve the acceptability of this approach;
- rural councillors tended to have less positive attitudes toward recreation as an important municipal service than did urban councillors; and,
- urban councillors had a stronger need to maintain control of their recreation services than did rural councillors.

Harvey (1977) suggested that poor planning and promotion may have resulted in failure to provide opportunities for participation, and in other cases, opportunities had been provided without support services, such as transportation, public relations, staffing, scheduling, etc. which presented obstacles or barriers to participation.

The studies which indicated that "recreational facilities or areas are overcrowded" looked at crowding from 1) the facility point of view or, 2) in terms of the carrying capacities and the crowding effects on the individual's personal space.

Nogami (1976), in an examination of crowding and group size, room size or density (p. 105), indicated that females were somewhat more density oriented than males and when a distance of ten square feet per person was violated they responded negatively. The male, however, reacted to group size and room size, with the group size having a greater effect.

ii) Price Factors

Becker (1975) examined pricing of recreation facilities, and reported the results of previous findings with regard to fee increases. In one instance, a moderate increase of twenty-five cents had the effect of increasing only the proportion of first time visitors, but did not change the composition of the visitor population. In another instance, following a fee increase of fifty cents, the attendance in the first year decreased but by the second year, after a period of 'education', the participation rates were the same as before the increase.

Livingston and Crompton (1982:8), in the article entitled "Estimating The Effect of Price Increases on Attendance and Total Revenues" indicated that decisions to participate may be influenced by the extent to which users perceive price increases to be justified. If the users of recreation facilities are fairly affluent, then price increases are less likely to have an adverse impact on attendance.

iii) Lack of Transportation

The studies which cited "lack of transportation" as a barrier focused heavily upon the disabled population. Revis and Revis (1978), examined this topic and indicated that transportation problems for the disabled were the result of an interaction of four basic factors:

(i) Low income - they are unable to purchase disability related equipment/services for travel;
(ii) Transportation service deficiencies - services not available, or services offered at wrong place or wrong time; inconvenient or operate too infrequently;
(iii) Rural isolation - living in rural settings compounds transportation problems;
(iv) Design problems - with transportation utilizing fixed facilities and vehicles, the problem is compounded mainly by design features.

Trips for recreation were found to be almost as important to the handicapped as trips for social or medical services. When private transportation was not available, as with many other low income groups, taxis were used.

Activity - Specific Barriers

Finally, certain barriers may be more commonly associated with specific activities. For example, Stynes et al. (1980) compared active, inactive, and drop-out potential skier markets. The results gave an indication of potential barriers with regard to involvement of people in this activity. Active skiers tended to include a higher proportion of men who were more likely to remain active longer, although more women were becoming involved, possibly due to increased participation in sports by women overall. It appeared that most active skiers were single, and that marriage and advancing age contributed to attrition among skiers. Stynes et al. also noted that inactive and drop-out (former) skiers perceived the sport to be more crowded, status oriented, and requiring more travel and expense than potential skiers, who viewed the sport as slightly more dangerous and requiring more ability. Expense, equipment costs, free time requirements and crowding were the factors that most influenced skiing decisions.

Summary of Literature and Key Concepts

This review serves as a summary and overview of the literature reported in Part I. The relevant literature may be divided into two categories. First is the large body of research which has examined variations in recreation preferences and participation, especially in relation to socio-economic variables, and which may indicate the presence of barriers. For example, the commonly-reported decline in outdoor recreation participation with advancing age may suggest declining physical ability among other factors, while low rates of participation among the poor may be indicative of severe economic barriers. Such research, however, merely indicates that obstacles may exist, and that their effects are perceived differentially among different segments of the public; it fails to show what indeed the barriers are, and how they vary between social groups and between various types of recreational activity. A thorough review of this class of literature would therefore be redundant. Moreover, it is well-known and has been summarized extensively elsewhere (for example, see Jackson, 1980; Kelly, 1980; Unkel, 1981; White, 1975; Zuzanek, 1978), as well as in earlier sections of this report.

Instead, it is more appropriate to turn to papers which have explicitly addressed the interconnected questions of non-participation, reasons for non-participation, and barriers to participation and enjoyment. For example, Romsa and Hoffman (1980) examined differences in perceived barriers between upper and lower social strata and between relatively active and inactive recreation groups; Witt and Goodale (1981) studied barriers to enjoyment (not participation) as a function of family stage; Boothby et al. (1981) reported on a variety of respondent's attributes related to ceasing participation in sports; and Francken and Van Raaij (1981) examined the socio-economic antecedents of relationships between barriers and leisure satisfaction.

A precise comparison of the barriers in these papers is not possible since items were not replicated and methods of data collection differed. Furthermore, the variables against which relationships with barriers were tested also differed, these being non-participation in nineteen activities (Romsa and Hoffman, 1980), ceasing participation in sports (Boothby et al. 1981), satisfaction with leisure (Francken and Van Raaij, 1981), and leisure enjoyment (Witt and Goodale, 1981). Nonetheless, some strong similarities are apparent. Romsa and Hoffman (1980) examined four sets of reasons for non-participation, these being lack of interest, time, facilities, and funds. Witt and Goodale (1981) utilized 18 specific reasons for non-participation which included time, skills, money, and opportunity, as well as other "items culled from the leisure counselling/leisure education literature that were thought to be key motivational, decision-making, or attitudinal barriers to leisure enjoyment" (pp. 32-33). Francken and Van Raaij (1981) broadly distinguished between two sets of barriers, namely "external" (e.g., circumstances, lack of time and money, geographical distance, and lack of facilities), and "internal" (e.g., personal capacities, abilities, knowledge, and interests), which correspond closely to but are the reverse of Iso-Ahola's "extrinsic" and "intrinsic" motivations for recreating (Iso-Ahola 1979a, 1979b). Lastly, Boothby et al. (1981) identified 43 specific reasons for ceasing sports activity, which they classified into six main groups, these being loss of interest, lack of facilities, lack of fitness and physical disability, leaving a youth organization, moving away from the area, and no time to spare.

One might reasonably ask whether or not reasons for non-participation, reasons for ceasing participation, barriers to participation, and barriers to enjoyment and satisfaction represent the same basic concepts. A clearer differentiation will probably have to await the results of more studies than have been published thus far. In any event, it is worth pointing out that, regardless of the precise nature of the associated variable, at least five sets of factors are common to two or more of the studies cited above - interest, time, money, facilities and opportunities, skills and abilities.

It is clear that the concept of non-participation, like its counterpart participation, can be defined in several ways. Possibilities include non-participation in recreation per se, non-participation in any of a group of comparable activities (e.g. self-propelled outdoor recreation activities such as cross-country skiing, canoeing, and back-packing), or non-participation in a given specific activity.

Further reflection also suggests that non-participants, however defined, may be sub-divided into two distinct groups, namely those who, for lack of interest, do not wish to participate, and those who wish to participate but for whom a barrier or combination of barriers temporarily or permanently restricts their participation. Certainly this distinction is useful for applied purposes, since it would be a waste of time and resources to try and generate enthusiasm among the uninterested. This implication is acknowledged explicitly by Boothby et al. (1981, p. 13) and directly by Francken and Van Raaij (1981, p. 351). Instead, it would be more productive to address the second group of non-participants by concentrating on relaxing the effects of obstacles. The present study focused on this group, by asking survey respondents if there was an activity in which they would like to participate but did not at the time of the survey; those respondents (presumably the uninterested) who did not specify such an activity were excluded from the analysis undertaken in Part II.

PART II

ANALYSIS OF SURVEY DATA

INTRODUCTION

Part II of the report presents a description and interpretation of the results of survey data analysis concerning:

(i) recreational activities in which Albertans would like to participate but currently do not;
(ii) the barriers or obstacles to such participation; and
(iii) socio-demographic and locational variables.

The analysis is based on a nine-part classification of recreational activities, this being an amendment to the revised classification utilized in an earlier analysis of recreation preferences, reasons for participating, and the satisfaction of needs. The nine groups are: 1) creative-cultural, social, and passive indoor recreational activities; 2) racquetball and handball; 3) tennis; 4) other exercise-oriented activities; 5) team sports; 6) self-propelled and/or non-mechanized outdoor recreational activities; 7) golf; 8) downhill skiing; and 9) other resource-based outdoor recreational activities.

The interpretation of findings is preceded by a description of the data and an overview of the analytical procedures which guided the computer output. Specific comments representing guides to the interpretation of data, however, are made at appropriate points elsewhere in the text.

Presentation of the findings is sub-divided into the following sections:

(i) comparisons of respondents desiring and those not desiring a new recreational activity;
(ii) relationships between desired activities and barriers to participation;
(iii) regional variations in desired activities and barriers to participation;

(iv) socio-demographic variations in desired activities; and

(v) socio-demographic variations in barriers to participation.

Part III of the report concludes with a brief synthesis and discussion of the findings, an assessment of the limitations of this component of the survey, and conclusions.

Study Objectives and Questions

The objective of this phase of the report is to present a concise summary of findings related to additional recreational activities in which Albertans would like to participate, and the barriers which inhibit participation. Generally, the analysis is directed towards answering the following question: who would like to participate in what activities, and what are the barriers which prevent them from doing so? More specifically, this question can be broken down into the following:

- in what respects (e.g. recreational behaviour, place of residence, and socio-economic and demographic variables) do Albertans who desire an additional recreational activity differ from those who do not?
- in what specific activities and groups of recreational activity would Albertans like to participate but currently do not, because of the effects of one or more barriers?
- hat is the relative strength and importance of barriers to recreational activity?
- how do these barriers vary between types of recreational activity?
- to what extent do desired activities and perceived barriers vary spatially across the Province of Alberta?
- in what ways do desired activities and perceived barriers vary between respondents defined according to socio-economic and demographic variables?

THE DATA AND ANALYSIS

This section of the report presents a brief description of the data derived from the questionnaire survey, together with an outline of the ways in which the data were manipulated for computer analysis and organized for the purpose of compiling statistical tables.

Variables

The analysis is based on relationships between four classes of variables:

(i) the additional desired activity;
(ii) barriers to participation;
(iii) location (place of residence); and,
(iv) socio-economic and demographic variables.

Additional Desired Activities

All respondents were asked the question, "Is there any recreational activity that you don't take part in now but would like to start regularly?" Of the 2425 respondents to the survey, 51.1% (1240) replied affirmatively. Between them, they identified 69 specific activities (Table 1). The overwhelming majority of these activities, however, were mentioned in numbers too small to permit statistical analysis and were therefore grouped, for the same reasons and according to the same criteria as used previously in the analysis of recreational activity preferences, reasons for participating, and the satisfaction of needs.

Initially, it had been intended to utilize the revised classification of recreational activities developed for the study Recreational Activity Preferences, Reasons for Participating and the Satisfaction of Needs (prepared by Edgar Jackson for Alberta Recreation and Parks Recreation Development Division, March 1982). This classification consisted of eleven groups, namely: creative-cultural activities; social activities; passive activities; exercise-oriented activities; team sports; golf; downhill skiing; extractive activities (hunting and fishing); camping;

TABLE 1

AMENDED CLASSIFICATION OF RECREATIONAL ACTIVITIES

CREATIVE-CULTURAL, SOCIAL, AND PASSIVE ACTIVITIES (81)*

Attending classes (7), Ballet, drama (3), Board games, cards (3), Dancing (20), Flower arranging (16), Gardening, hobby farming (2), Gourmet cooking (1), Musical instruments (11), Painting, pottery (9), Photography (4), Pool, billiards, snooker (1), Reading books or magazines (2), Theatre (2).

RACQUETBALL, HANDBALL (170)

Racquetball, handball (170).

TENNIS (104)

Tennis (104).

OTHER EXERCISE-ORIENTED ACTIVITIES (291)

Archery (10), Badminton (19), Bicycling (17), Bowling (43), Calisthenics (31), Gymnastics (4), Jogging (20), Martial arts, karate (13), Nature walks, bird watching (1), Rollerskating (14), Skating (12), Swimming (93), Tobogganing (1), Walking for pleasure (3), Weightlifting, body-building (10).

TEAM SPORTS (125)

Baseball (21), Basketball (13), Curling (45), Football (8), Hockey, floor hockey (27), Soccer (7), Volleyball (4).

* ( ) Brackets report the number of respondents desiring each activity.

(Table 1, cont.)

SELF-PROPELLED AND/OR NON-MECHANIZED OUTDOOR RECREATIONAL ACTIVITIES (153)

Backpacking (13), Canoeing, Kayaking (17), Cross-country skiing (79), Hang-gliding (11), Hiking (3), Mountaineering (3), Sailing (17), Scuba diving, surfing (10).

GOLF (75)

Golf (75).

DOWNHILL SKIING (92)

Downhill skiing (92).

OTHER RESOURCE-BASED OUTDOOR RECREATIONAL ACTIVITIES (113)

ATV use (2), Ballooning, flying (16), Boating (9), Camping (20), Fishing (18), Horse riding (9), Hunting (11), Motorcycling (2), Parachuting (7), Racing cars, motorcycles (1), Rallying (2), Skateboarding (1), Snowmobiling (4), Waterskiing (11).

OTHER (36)

Organizations or meetings (2), Picnics (2), Rodeo (1), Soaring (1), Spectatorship (2), Travel, vacationing (11), Other in-home activities (3), Other out-of-home activities (14).

self-propelled and/or non-mechanized outdoor recreational activities; and mechanized and/or non-self-propelled outdoor recreational activities.

Unfortunately, however, use of the revised classification proved to be neither possible nor desirable. It was not possible because some groups of activities in the revised classification did not contain sufficient numbers of respondents desiring them as new recreational activities to perform a statistical analysis. It was not desirable because certain specific activities formerly treated within a group were listed frequently enough to allow statistical analysis, and it was deemed beneficial to give them separate and individual consideration.

In sum, the following changes were made to the revised classification for the purpose of analyzing respondents' desires for additional activities:

- creative-cultural, social, and passive activities were combined into a single group;
- racquetball/handball and tennis were each recognized as distinct types of recreational activity;
- exercise-oriented activities omitted racquetball/handball and tennis;
- mechanized and/or non-self-propelled activities, extractive activities, and camping were combined into a single group.

Based on these changes, a nine-category "amended classification" was developed to form the basis for the analysis described in this report (Table 2). Activities in which the sample of Albertans did not participate but would like to try are shown as a proportion of the total sample, of respondents identifying a new desired activity, and of the latter category minus respondents whose activity desires were classified in the "other" category. Racquetball/handball was by far the most desired specific activity, followed by tennis, downhill skiing, and golf. However, when categories of activities were included in the list, other exercise-oriented activities ranked first in preference, and there was a substantial desire expressed for team sports and for self-propelled and other resource-based outdoor recreational activities. The creative-cultural, social, and passive class of leisure activities ranked relatively low on the list. Respondents listing activities classified as "other" were excluded from further analysis.

TABLE 2

AMENDED CLASSIFICATION: DESIRED ACTIVITIES (RANK ORDER)

Activity class	n	% of sample	% of respondents expressing desired activity	% of sub-sample*
1. Other exercise-oriented	291	12.0	23.5	24.2
2. Racquetball, handball	170	7.0	13.7	14.1
3. Self-propelled	153	6.3	12.3	12.7
4. Team sports	125	5.2	10.1	10.4
5. Other resource-based	113	4.7	9.1	9.4
6. Tennis	104	4.3	8.4	8.6
7. Downhill skiing	92	3.8	7.4	7.6
8. Creative-cultural, social, and passive	81	3.3	6.5	6.7
9. Golf	75	3.1	6.0	6.2

* Respondents indicating a desired recreational activity minus those whose preference was placed in the "Other" category, i.e. The proportion of respondents specifically reporting activities one through nine.

Barriers to Participation in the Desired Activity

In order to determine variations in the perceived importance of barriers, respondents who identified a desired activity were further asked the question "Why don't you participate in this activity?" and were instructed to check whether each of 15 reasons listed in the questionnaire was viewed as "never", "sometimes", or "often a problem". Three measures of the relative importance of barriers to participation are shown in Table 3, based on:

- the proportion of the sample describing each barrier as "sometimes" or "often a problem";
- the proportion of the sample describing each barrier as "often a problem";
- mean-scores summarizing the complete range of response to each barrier statement (Never = 1; Sometimes = 2; Often = 3).

The three measures have been included because each gives a slightly different perspective on the data. While the rank position of barriers was identical for seven statements, there were discrepancies of up to three positions for the remaining eight. In cases where the barrier ranked higher according to the percentage describing it as "often a problem" rather than as either "sometimes" or "often a problem", a particularly strong barrier among some segments of the sample is indicated (e.g. "I don't know where I can participate"; "the price of recreational equipment"). The reverse cases (e.g., "family commitments"; "it is difficult to find others to participate with") indicate a more widespread but relatively weaker barrier to participation.

Work commitments represented the most important barrier to participation in the desired activity among the sub-sample; the other lack-of-time barrier, family commitments, however, ranked only sixth according to the mean-score measure of importance. Economic barriers ranked fifth, seventh, and eleventh, with the price of equipment being the most important of the three, the price of gasoline the least important, and admission fees and charges in the middle. The lack of opportunity was also an important barrier, ranking third according to the mean-score, whereas barriers related to respondent's knowledge of

TABLE 3
IMPORTANCE OF BARRIERS TO PARTICIPATION:*
SUB-SAMPLE**

Barrier	"Sometimes" or "Often a problem" %	Rank	"Often a problem" %	Rank	Mean-score*** Score	Rank
Family Commitments	55.8	5	15.9	8	1.72	6
Work Commitments	71.3	1	32.3	1	2.04	1
Not having the physical abilities	21.1	12	6.0	12	1.27	12
Present price of gasoline	26.7	11	6.9	11	1.34	11
Not having artistic or creative abilities	16.8	14	3.1	15	1.20	14
Admission fees and charges to use recreational facilities	45.3	7	17.0	7	1.62	7
I don't know where I can participate in this activity	43.1	8	18.0	6	1.61	8
It is difficult to find others to participate with	58.1	3	21.2	5	1.79	4
The price of recreational equipment	53.2	6	23.2	4	1.76	5
I don't know where I can learn the activity	31.8	9	13.6	9	1.45	9
The recreational facilities or areas are overcrowded	64.4	2	29.6	3	1.94	2
I am shy about participating in public	29.4	10	7.7	10	1.37	10
There is no opportunity to participate near my home	57.5	4	31.3	2	1.89	3
I am physically unable to participate	11.2	15	3.8	14	1.15	15
Lack of transportation	17.6	13	5.5	13	1.23	13

* In order of administration in questionnaire.
** Based on 1240 respondents indicating a desired recreational activity.
*** A higher score suggests a stronger barrier.

participation and learning opportunities ranked only eighth and ninth respectively. Barriers related to ability (physical ability, artistic ability, and physically unable) uniformly ranked in the bottom four. In addition, overcrowding of facilities and areas was a particularly important barrier (ranking second), as was the difficulty of finding others with whom to participate (4th). Shyness (10th) and lack of transportation (14th) were perceived as barriers by smaller proportions of the sub-sample.

Place of Residence

Regional differences in desired activities and perceptions of barriers were examined by recording answers to Question 8, section 4 ("In what village, town, or city do you live?") into the following five categories:

- Southern region of Alberta;
- Central region of Alberta;
- Northern region of Alberta;
- Calgary;
- Edmonton.

Socio-economic and Demographic Variables

In addition to place of residence, differences in desired activities and perceptions of barriers were examined among sub-groups of the sample according to the following socio-economic and demographic variables:

- Age;
- Sex;
- Education;
- Income;
- Type of household (family structure);
- Size of household; and
- Length of residence in Alberta.

As necessary, the frequencies for each variable were classified to prevent undue fragmentation in the analysis. For example, the numbers of respondents who had lived in Alberta less than 6 months, 6 months to a year, and between one and two years were too few to perform a statistical analysis and were therefore collapsed into a single group.

Analysis

Three sets of analyses were conducted:

- frequency distributions for all variables;
- bi-variate analysis:
  - i) desired activities by locational, socio-economic, and demographic variables;
  - ii) barrier statements by locational, socio-economic, and demographic variables;
  - iii) barrier statements by desired activities;
- multivariate analysis, via a re-examination of relationships between barrier statements and desired activities under controlled conditions of the main locational, socio-economic, and demographic variables (place of residence, age, sex, education, income, and length of residence in Alberta).

However, this last phase of analysis was unsuccessful for reasons described in detail at the appropriate point later in Part II of the report.

For the most part, the analysis was conducted in the form of crosstabulations, a statistical technique which allows for the evaluation of the presence, direction, and significance (though not necessarily the strength) of a relationship, yet retains enough of the raw data to permit a thorough and meaningful description of the relationship. Mean-scores were also calculated from these tables.

FINDINGS

Comparison of Respondents Desiring and Not Desiring a New Recreational Activity

Any discussion of the effects of barriers to participation in the choice of recreational activities must first be placed in the context of the extent to which individuals and members of sub-groups wished to participate in a new or additional recreational activity. This is so because the absolute importance of any given barrier to participation among any given sub-group of the sample is a function, in part, of the number of individuals wishing to participate in that activity. For the sample as a whole, this number amounted to 1240, or 51.1%. Alternately, 1185 respondents did not wish to participate in a new or additional recreational activity for whatever reason, this number amounting to 48.9% of the sample. This latter proportion, however, was not consistent across sub-groups of the sample, as can be seen in Tables 4 to 7, which show significant and frequently substantial differences in the desire (or lack thereof) for a new or additional recreational activity between sub-groups of the sample defined on the basis of their current favourite recreational activity, their length and place of residence, and other socio-economic and demographic variables.

It is also important to state explicitly at the outset what the data described in this section of the report can show. The data cannot, for example, show if the new activity is meant to replace or to complement the current favourite recreational activity. Nor can they show why some people replied affirmatively and others negatively when asked if there was a recreational activity in which they would like to participate but did not at the time of the survey. All they can show is that the proportions of respondents desiring a new or additional recreational activity varied consistently, significantly, and substantially between sub-groups of the sample defined according to the variables listed in Tables 4 to 7.

Despite the preceding qualifications, it is not unreasonable to interpret the lack of desire for a new recreational activity as "lack of interest", recognizing two possible alternative meanings of this concept. On the one hand, lack of interest may be a negative response amounting to apathy. On the other hand, it may represent a more positive response in the sense that the individual whose needs are satisfied and motivations are fulfilled in current recreation behaviour sees no need to seek an alternative or complementary activity.

The implication of these statements is that the reader, when interpreting socio-economically-based differences in activity desires and barriers, must keep in mind that the analysis refers only to the sub-sample of respondents who indicated they would like but were unable to participate in a new recreational activity. For these people, therefore, it is barriers above and beyond lack of interest which act as obstacles to participation.

a) Differences based on current favourite activities

As far as differences based on current favourite recreational activities (grouped according to the revised classification) are concerned, the proportion of respondents desiring a new activity ranged from a low of 38.6% of respondents who most enjoy extractive activities (hunting and fishing) to a high of 64.9% of those preferring downhill skiing (Table 4). Other groups indicating a below-average desire for a new activity included participants in creative-cultural and passive activities, and golf, while a higher than average desire was expressed by those who favoured social, exercise-oriented, and self-propelled activities, and team sports.

These findings should probably not be interpreted to suggest that activity desires are in any way dependent upon or determined by current activity preferences, and that participants in extractive activities, for example, are more satisfied and therefore less likely to seek a recreational alternative than those who prefer, say, downhill skiing.

TABLE 4

COMPARISON OF RESPONDENTS DESIRING AND NOT DESIRING A NEW RECREATIONAL ACTIVITY: (1): RESPONDENTS CLASSIFIED BY FAVOURITE ACTIVITY

Favourite Type of Activity	New Activity Desired %	New Activity Not Desired %
Creative-cultural	44.4	55.6
Social	59.5	40.5
Passive	47.0	53.0
Exercise-oriented	58.4	41.6
Team Sports	60.4	39.6
Self-propelled	59.4	40.6
Mechanized	48.8	51.2
Golf	45.2	54.8
Downhill Skiing	64.9	35.1
Camping	54.5	45.5
Extractive	38.6	61.4

Chi-square = 44.86; d.f. = 10; p .001

Indeed, an earlier analysis of activity preferences, reasons for participating, and the satisfaction of needs indicated uniformly high levels of satisfaction in all categories of preferred recreational activities. Instead, it would be better to view activity desires and activity preferences as simultaneous outcomes of a complex of other factors as defined, for instance, by the individual's socio-economic, demographic and motivational attributes as well as the constraints on recreational choice which these factors might impose.

b) Differences based on place and length of residence in Alberta

Statistically significant but not very substantial differences occurred in the desire for a new recreational activity by place of residence (Table 5). Residents of Calgary and Edmonton exhibited a marginally more frequent desire than did respondents living outside the two major cities of the Province. There was also a recognizable trend depicting a decline in the desire for a new recreational activity as length of residence increased (Table 5). Thus only 46.5% of Alberta residents for ten years or more desired an additional activity, compared with 65.7% of comparative newcomers to the Province (up to 2 years). There are at least two possible reasons for this last finding: newcomers may not be as aware of recreational opportunities as are more established residents (an interpretation for which some support will be presented later). In Table 25 it can be seen that newcomers more frequently than others identified "site unknown" as a barrier to participation. Newcomers, therefore, may not yet have established patterns of recreational behaviour. Secondly, newcomers are more likely than established residents to be relatively young, and it is this group which, according to Table 6, also expressed a more frequent desire for a new recreational activity. This last possibility indicates the presence of interaction effects on recreational preferences among the socio-economic and demographic variables; unfortunately, as described later in this report, the sample size was insufficiently large to isolate the specific effects of each individual variable.

TABLE 5

COMPARISON OF RESPONDENTS DESIRING AND NOT DESIRING A NEW RECREATIONAL ACTIVITY: (2): PLACE OF RESIDENCE & LENGTH OF RESIDENCE

	New Activity Desired %	New Activity Not Desired %	Chi-square d.f. p
PLACE OF RESIDENCE			
South region	46.8	53.2	10.00
Central region	47.7	52.3	4
North region	47.9	52.1	0.05
Calgary	53.3	46.7	
Edmonton	54.4	45.6	
LENGTH OF RESIDENCE			
Up to 2 years	65.7	34.3	42.72
2 - 5 years	60.0	40.0	3
5 - 10 years	59.3	40.7	0.001
10 years or over	46.5	53.5	

c) Differences based on other socio-economic and demographic variables

The effects of age, sex, education, and income in the desire for a new or additional recreational activity are shown in Table 6. Males and females were almost identical in their preferences, but there were significant and important differences according to the other three variables. In the case of age, there was a marked decline in the desire for a new recreational activity with increasing age for more than two-thirds of the youngest age group to less than one-sixth of the oldest age group. The direction of the relationship was reversed and not quite so marked in the case of the education variable. Thus the proportion of respondents desiring an additional recreational activity increased from 35.3% of those with less than high school education to 60.8% of those with university education. The trend also occurred in the same direction for the income variable; in this case, however, the most important difference was between respondents with an annual family income of less than $10,000, and the remaining income groups taken together, approximately equal proportions of whom (roughly 52%) desired a new or additional recreational activity. In contrast, 35.1% of those respondents with an annual income of less than $10,000 desired a new recreational activity.

Differences in the desire for a new recreational activity between respondents characterized by their type and size of household were statistically significant but not substantial (Table 7). Proportions of respondents desiring a new recreational activity were marginally higher among single-parent and larger families, and lower among couples with no children and smaller families.

TABLE 6

COMPARISON OF RESPONDENTS DESIRING AND NOT DESIRING A NEW RECREATIONAL ACTIVITY: (3): AGE, SEX, EDUCATION, AND INCOME

	New Activity Desired %	New Activity Not Desired %	Chi-square d.f. p
AGE			
Up to 24	67.4	32.6	262.59
25 to 34	64.1	35.9	4
35 to 44	48.6	51.4	0.0000
45 to 64	34.8	65.2	
65 and over	15.7	84.3	
SEX			
Male	49.3	50.7	2.32
Female	52.6	47.4	1
			n.s.
EDUCATION			
Less than high school	35.3	64.7	83.72
High school	51.5	48.5	3
Some post-secondary	55.7	44.3	0.0001
University	60.8	39.2	
INCOME			
Less than $10,000	35.1	64.9	22.81
$10,000 to $20,000	51.9	48.1	4
$20,000 to $30,000	52.9	47.1	0.001
$30,000 to $40,000	51.3	48.7	
Over $40,000	53.1	46.9	

TABLE 7

COMPARISON OF RESPONDENTS DESIRING AND NOT DESIRING A NEW RECREATIONAL ACTIVITY: (4): TYPE OF HOUSEHOLD AND SIZE OF HOUSEHOLD

	New Activity Desired %	New Activity Not Desired %	Chi-square d.f. p
TYPE OF HOUSEHOLD			
Couple with children	51.4	48.6	8.02
Couple, no children	45.7	54.3	3
Single-parent family	56.7	47.9	
One or more unrelated	52.1	47.9	
SIZE OF HOUSEHOLD			
1	41.8	58.2	14.41
2	48.6	51.4	4
3	53.8	46.2	0.01
4	53.6	46.4	
5 or more	52.5	47.5	

d) Summary

The proportions of respondents expressing the desire for a new recreational activity, or alternately the proportion expressing a lack of interest, varied between sub-groups of the sample. While differences occurred between respondents grouped on the basis of their current favourite recreational activity, it would be unwise to view this as a deterministic relationship. Instead, both activity desires and activity preferences should be interpreted as outcomes of the same set of factors and circumstances. The level of interest in a new recreational activity appeared to be least dependent on respondent's sex, place of residence, and size and type of household, but varied most in conjuction with age, education, and income. Interest was: highest among young people and declined severely with age; lowest among the least educated and increased with levels of education; and markedly lower among the poorest respondents. It is also worth noting that these findings concerning socio-economic variations in lack of interest as a reason for non-participation compare quite well with results reported by Romsa and Hoffman (1980).

Activity-Specific Barriers to Participation

a) Data presentation and interpretation

The examination of variations in the effects of barriers to participation between types of recreational activity is based on three ways of presenting essentially the same data (Tables 8, 9, & 10). In Table 8 the barriers are presented in rank-order for the sub-sample desiring a new recreational activity according to the proportion describing each barrier as "sometimes" or "often a problem". The table also shows the proportions of respondents desiring an activity who rated each barrier as "sometimes" or "often a problem", and the rank-order of importance of each barrier within each group. The procedure is then repeated in Table 9, but in this case the percentages and ranks refer to only those respondents who rated the barriers as "often a problem".

TABLE 8
RELATIONSHIPS BETWEEN DESIRED ACTIVITIES AND PER CENT RESPONDING "SOMETIMES" OR "OFTEN A PROBLEM" TO BARRIERS STATEMENTS

Sample Rank and %		Creative etc.		Racquetball		Tennis		Exercise-Oriented		Team Sports		Self-Propelled		Golf		Downhill Skiing		Resource Based	
		%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
1. Work*	71.3	62.3	1	75.4	2	74.0	2	67.9	1	68.6	1	69.0	1	75.3	2	79.1	3	72.5	1
2. Overcrowding	64.4	34.7	9	78.3	1	81.0	1	61.7	2	57.8	3	44.8	6	75.7	1	85.7	1	59.4	4
3. No others	58.1	43.4	7	71.2	3	69.0	3	58.6	4	66.9	2	58.2	3	28.2	7	48.3	7	51.8	5
4. Opportunity	57.5	54.5	2	58.2	5	54.0	5	60.5	3	57.8	3	51.0	5	37.5	6	60.4	6	64.5	3
5. Family*	55.8	52.6	3	56.7	6	64.0	4	50.7	5	50.4	6	54.9	4	62.9	3	69.2	5	51.4	6
6. Equipment	53.2	45.9	6	49.7	7	37.0	8	40.1	7	44.4	7	66.9	2	44.9	5	85.6	2	66.4	2
7. Admission	45.3	37.7	8	60.0	4	48.0	6	37.5	8	39.3	8	17.8	12	58.6	4	73.6	4	46.7	9
8. Site unknown	43.1	52.6	3	37.9	8	46.5	7	47.8	6	57.1	5	41.8	7	21.4	9	19.8	13	46.8	7
9. Learning unknown	31.8	49.3	5	32.5	9	37.0	8	31.1	10	36.8	9	31.7	8	19.7	11	20.9	11	20.6	10
10. Shyness*	29.4	22.7	11	28.4	10	35.4	10	35.2	9	25.4	11	27.4	9	25.4	8	23.1	10	19.3	11
11. Gas price	26.7	22.4	12	19.0	11	14.1	14	25.1	11	24.8	12	23.3	10	20.0	10	35.2	8	46.8	7
12. Phys. ability	21.1	18.9	13	17.2	13	23.0	11	20.7	12	29.1	10	17.9	11	11.4	13	31.9	9	7.3	13
13. Transport*	17.6	18.9	13	18.8	12	19.0	12	18.1	14	12.9	14	12.3	13	8.6	14	20.9	11	14.0	12
14. Art. ability	16.8	31.6	10	10.5	14	15.3	13	18.8	13	15.0	13	9.6	14	15.9	12	18.9	14	5.6	14
15. Phys. unable*	11.2	10.7	15	6.8	15	13.0	15	13.2	15	7.7	15	4.8	15	7.1	15	14.4	15	5.5	15

* Not significant at .05 level

TABLE 9
RELATIONSHIPS BETWEEN DESIRED ACTIVITIES AND PER CENT RESPONDING "OFTEN A PROBLEM" TO BARRIERS STATEMENTS

		Creative etc.		Racquetball		Tennis		Exercise-Oriented		Team Sports		Self-Propelled		Golf		Downhill Skiing		Resource Based	
Sample Rank and %		%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
1. Work*	32.3	26.0	2	29.9	3	26.0	3	32.8	2	32.2	2	33.1	2	42.5	1	30.8	5	40.4	2
2. Opportunity	31.3	28.6	1	31.5	2	29.0	2	39.1	1	32.8	1	22.4	3	16.7	5	31.9	4	33.6	3
3. Overcrowding	29.6	12.5	8	47.2	1	38.0	1	29.1	3	26.7	5	11.7	6	38.6	2	29.6	2	23.6	5
4. Equipment	23.2	21.6	3	14.1	6	10.0	10	14.1	8	14.5	8	34.5	1	17.4	4	45.6	1	44.5	1
5. No others	21.2	18.4	5	21.5	5	26.0	3	21.2	5	30.5	4	19.2	4	8.5	7	7.9	10	25.5	4
6. Site unknown	18.0	18.4	5	13.7	8	14.9	5	24.4	4	31.9	3	10.3	8	7.1	8	5.5	12	19.8	6
7. Admission	17.0	10.4	9	25.5	4	12.0	9	12.9	9	12.0	9	5.5	10	24.3	3	36.3	3	19.6	7
8. Family*	15.9	14.5	7	14.0	7	13.0	8	14.8	7	19.7	6	18.8	5	15.7	6	19.8	6	16.5	8
9. Learning unknown	13.6	18.7	4	9.8	9	14.0	6	18.1	6	15.4	7	11.7	6	7.0	9	6.6	11	10.3	10
10. Shyness*	7.7	5.3	13	7.4	10	13.1	7	10.5	10	5.1	10	7.5	9	2.8	15	3.3	13	3.7	11
11. Gas price	6.9	3.9	15	4.3	12	2.0	15	8.9	11	5.1	10	0.7	15	2.9	12	11.0	7	12.8	0
12. Phys. ability	6.0	6.8	10	3.7	13	3.0	14	8.5	12	3.4	12	2.8	11	5.7	10	8.8	9	1.8	14
13. Transport*	5.5	6.8	10	4.8	11	7.0	11	5.2	13	1.7	13	2.7	12	4.3	11	9.9	8	2.8	12
14. Phys. unable*	3.8	4.0	14	1.2	15	4.0	12	4.4	14	1.7	13	1.4	14	2.9	12	3.3	13	2.8	12
15. Art. ability	3.1	6.6	12	1.9	14	3.1	13	3.8	15	0.9	15	2.1	13	2.9	12	3.3	13	0.0	-

* Not significant at .05 level

TABLE 10
MEAN-SCORES FOR RESPONSES TO BARRIERS STATEMENTS

Sample Rank and Score		Creative etc.		Racquetball		Tennis		Exercise-Oriented		Team Sports		Self-Propelled		Golf		Downhill Skiing		Resource Based	
		%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
1. Work*	2.04	1.88	1	2.05	2	2.00	2	2.01	1	2.01	1	2.02	1	2.18	1	2.10	3	2.13	1
2. Overcrowding	1.94	1.47	9	2.25	1	2.19	1	1.91	3	1.84	5	1.57	5	2.14	2	2.25	2	1.83	4
3. Opportunity	1.89	1.83	2	1.90	4	1.83	4	2.00	2	1.91	3	1.73	4	1.54	6	1.37	9	1.98	3
4. No others	1.79	1.62	7	1.93	3	1.95	3	1.80	4	1.97	2	1.77	3	1.37	7	1.56	6	1.77	5
5. Equipment	1.76	1.68	4	1.64	7	1.47	10	1.54	7	1.59	7	2.01	2	1.62	5	2.31	1	2.11	2
6. Family*	1.72	1.67	6	1.71	6	1.77	5	1.66	6	1.70	6	1.31	9	1.79	4	1.89	5	1.68	6
7. Admission	1.62	1.48	8	1.85	5	1.60	7	1.50	8	1.51	9	1.23	11	1.83	3	2.10	3	1.66	8
8. Site unknown	1.61	1.71	3	1.52	8	1.61	6	17.2	5	1.89	4	1.52	6	1.29	8	1.25	13	1.67	7
9. Learning unknown	1.45	1.68	4	1.42	9	1.51	8	1.49	9	1.52	8	1.43	7	1.27	10	1.27	11	1.31	10
10. Shyness*	1.37	1.28	11	1.36	10	1.48	9	1.46	10	1.31	11	1.35	8	1.28	9	1.26	12	1.23	11
11. Gas price	1.34	1.26	12	1.23	12	1.16	15	1.34	11	1.30	12	1.24	10	1.23	11	1.46	7	1.60	9
12. Phys. ability	1.27	1.26	12	1.21	13	1.25	11	1.29	12	1.32	10	1.21	12	1.17	12	1.41	8	1.09	13
13. Transport*	1.23	1.26	12	1.24	11	1.25	11	1.23	13	1.15	14	1.15	13	1.13	14	1.31	10	1.17	12
14. Art. ability*	1.20	1.38	10	1.12	14	1.18	13	1.23	13	1.16	13	1.12	14	1.19	13	1.22	14	1.06	15
15. Phys. unable	1.15	1.15	15	1.08	15	1.17	14	1.18	15	1.09	15	1.06	15	1.10	15	1.18	15	1.08	14

* Not significant at .05 level

The series of tables concludes with Table 10, in which mean-scores and ranks based on the total range of responses among the sub-sample and among activity-preference groups are shown. The results are also summarized in two ways in matrix form in Figures 2 and 3.

The interpretation of differences in the effects of barriers to participation between types of recreational activity is based on an examination of two aspects of the data. First, in an attempt to discriminate between recreational activity types, it is necessary to identify those barriers which, either singly or in combination, best serve to distinguish each category of recreational activity from the rest. Thus, for example, barriers such as overcrowding, equipment costs, admission charges and fees, and the price of gasoline were perceived as important obstacles by those who would like to participate in downhill skiing, while those who would like to engage in creative-cultural, social, or passive activities gave higher ratings to barriers such as the lack of artistic ability and the lack of knowledge as to where the activity may be enjoyed or learned. It is also clear that it is combinations of barriers rather than single barriers alone which best discriminate between types of recreational activity. For example, while respondents who would like to golf resembled potential downhill skiers in that both groups saw admission charges and user fees as significant obstacles, they differed in terms of their evaluations of equipment costs, which were perceived as a substantially more important barrier to downhill skiing (45.6% "often a problem") than to golf (17.4%).

Differences such as these were identified on the basis of rather arbitrary criteria. Barriers which were ranked 3 or more positions above the sub-sample average among each group of respondents, or for which the response was ten percentage points higher than for the sub-sample as a whole, were identified as substantially more important for each group. Those ranked 3 or more positions below the sub-sample average or for which the response was ten percentage points lower than for the sub-sample were identified as substantially less important for each group. These findings are summarized in Figure 2.

FIGURE 2

DISCRIMINATING BARRIERS STATEMENTS

	Creative, etc.			Racquetball			Tennis			Exercise-oriented			Team sports			Self-propelled			Golf			Downhill skiing			Resource-based		
*SUB-SAMPLE RANK/BARRIER**	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1. WORK COMMITMENTS			○																	●	●		○				
2. OVERCROWDING	○	○	○	●	●	●	●		●						○	○	○	○	●		●	●	●	●			○
3. NO OPPORTUNITY												●						○	○	○	○			○			
4. NO OTHERS	○		○	●		●	●		●					●	●				○	○	○	○	○	○	○		
5. EQUIPMENT COSTS						○	○	○	○	○	○	○		○	○	●	●	●			○	●	●	●	●	●	●
6. FAMILY COMMITMENTS																	●	○				●		●			
7. ADMISSION & FEES			○	●	●	●						○			○	○	○	○	●	●	●	●	●	●			
8. SITE UNKNOWN	●		●									●	●	●	●				○	○	○	○	○	○			
9. LEARNING UNKNOWN	●	●	●					●			●						●		○		○	○		○	○		○
10. SHYNESS		○						●	●											○			○	○	○		○
11 PRICE OF GASOLINE		○				○	○	○	○									○			○	●	●	●	●		●
12. PHYSICAL ABILITY																					○	●	●	●	○		○
13. LACK OF TRANSPORT		●																			○		●	●			
14. ARTISTIC ABILITY	●	●	●																						○		
15. PHYSICALLY UNABLE																											

*In rank-order for sub-sample by mean-score

A Based on % responding 'Sometimes' or 'Always a problem' to Barriers Statements
B Based on % responding 'Always a problem' to Barriers Statements
C Based on mean-scores calculated from sub-samples responses to Barriers Statements

● Substantial positive deviation from sample average and /or rank
○ Substantial negative deviation from sample average and/or rank

FIGURE 3

MOST IMPORTANT & LEAST IMPORTANT BARRIERS FOR EACH GROUP OF RECREATIONAL ACTIVITIES

	Creative, etc.			Racquetball			Tennis			Exercise-oriented			Team sports			Self-propelled			Golf			Downhill skiing			Resource-based		
SUB-SAMPLE RANK/BARRIER *	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1. WORK COMMITMENTS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2. OVERCROWDING				●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	●	●
3. NO OPPORTUNITY	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●			●		●	●	●
4. NO OTHERS		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							●	●	●
5. EQUIPMENT COSTS		●	●													●	●	●	●	●	●	●	●	●	●	●	●
6. FAMILY COMMITMENTS	●						●		●	●						●	●		●		●	●		●			
7. ADMISSION & FEES				●	●	●										○		○	●	●	●	●	●	●			
8. SITE UNKNOWN	●	●	●					●			●	●	●	●	●							○	○	○			
9. LEARNING UNKNOWN	●	●	●																○			○	○	○			
10. SHYNESS	○	○	○										○		○					○			○	○	○	○	○
11. PRICE OF GASOLINE	○	○	○	○	○	○	○	○	○	○	○	○	○		○		○			○	○						
12. PHYSICAL ABILITY	○		○	○	○	○	○	○	○	○	○	○		○		○	○	○	○		○				○	○	○
13. LACK OF TRANSPORT	○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			○	○	○
14. ARTISTIC ABILITY		○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
15. PHYSICALLY UNABLE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

* In rank-order for sub-sample by mean-score

A Based on % responding 'Sometimes' or 'Always a problem' to Barriers Statements
B Based on % responding 'Always a problem' to Barriers Statements
C Based on mean scores calculated from sub-samples responses to Barriers Statements

● Barrier ranked in top 5
○ Barrier ranked in bottom 5

It is also important to know which barriers were perceived as the greatest and least obstacles to participating in each type of recreational activity. The fact that a particular barrier discriminated between groups because it achieved a substantially higher response or ranking among one or more groups does not necessarily mean that it was a significant barrier to participation in that activity. Artistic ability, for example, was viewed as a more important obstacle to creative-cultural, social and passive activities than to any other type of activity; but even among respondents desiring this class of activities, it ranked in the bottom third of the fifteen barriers. Conversely, the fact that a particular barrier may have failed to discriminate between recreational activities does not necessarily mean that it exerts no effect on the choice of recreational activity, a case in point being work commitments, which ranked first among the sub-sample of respondents desiring a new recreational activity, as it did among five of the groups of recreational activity. Identification of the most and least important barriers to participation in each type of recreational activity, is a useful complement to the types of data described above. For ease of interpretation, the results are summarized in Figure 3.

b) Activity-specific barriers

Statistically significant differences in responses occurred for ten of the fifteen barriers statements. The exceptions were work and family commitments, shyness, lack of transportation and being physically unable. Four groups of activity, racquetball/handball, tennis, exercise-oriented activities, and team sports shared almost identical patterns in terms of the four most important barriers - work commitments, overcrowding, lack of opportunity, and lack of partners. They were further remarkably similar in the almost uniformly low ranking attached to the price of gasoline, physical ability, lack of tranportation, artistic ability, and being physically unable. The data summarized in Figure 3, however, do show some differences between these four activity-types, specifically in terms of admission charges and fees as a barrier to participation in racquetball/handball, and lack of knowledge as to an appropriate site as a barrier to participation in exercise-oriented activities and team sports. Turning now to those barriers which discriminated between these activities and distinguished them from the rest (Figure 2), the results are as follows:

(i) overcrowding, admission fees and charges, and the lack of partners were substantially more important for those who wished to participate in racquetball/handball;

(ii) there was some evidence that overcrowding and lack of partners, together with shyness were substantially greater inhibitors of participation in tennis; and

(iii) the lack of knowledge of appropriate sites was an important barrier to participation in team sports. Equipment costs were a substantially less important obstacle for most of these types of activity than for several others.

Resource-based outdoor recreation activities resembled the aforementioned groups in many respects, especially with regard to the top- and bottom-ranked barriers (Figure 3). On the other hand, the economic barriers of the price of gasoline and, especially, equipment costs distinguished this group from most of the rest.

A high degree of resemblance in regard to the most important barriers may also be discerned between those respondents who would like to golf and those who would like to downhill ski. Neither lack of opportunity nor lack of partners ranked highly, but economic factors, especially equipment costs and admission fees and charges did. These last two barriers, together with the price of gasoline, overcrowding, lack of transportation, and physical ability were also substantially more important obstacles to would-be downhill skiers than to most other respondents.

Equipment costs were also an important and discriminating barrier for those who would like to participate in self-propelled outdoor activities. But, unlike downhill skiing and golf, overcrowding was viewed as less of a problem than was the lack of opportunities and partners.

The remaining group, respondents desiring creative-cultural, social or passive activities, was distinguished most by the perceived lack of, and awareness of learning and participation opportunities. There was also evidence to suggest that lack of artistic ability acted as a barrier to participation in this form of leisure activity.

c) Effects of barriers

A complementary perspective on the data may be gained by reading across the rows instead of down the columns in Figure 2. Ignoring those barriers for which differences between groups were not statistically significant, it is possible on this basis to identify types of recreational activity for which each barrier had the greatest or least effect. As far as the economic barriers are concerned, equipment costs represented a substantially more important obstacle to participation in self-propelled and other resource-based outdoor recreation activities, and a less important obstacle for tennis, exercise-oriented activities, and team sports. Admission fees and charges acted as a deterrent for racquetball/handball, golf, and downhill skiing, but less so for self-propelled activities. The price of gasoline inhibited participation in downhill skiing and resource-based activities.

There were no important differences between activities in terms of real opportunities, with the exception of golf (for which this was a comparatively less important barrier than for other activities). But the lack of awareness of opportunities was perceived among those who desired creative-cultural, social and passive activities, team sports, and to some extent exercise-oriented activities and tennis. Physical ability represented a substantial deterrent only to participation in downhill skiing, and artistic ability only to participation in creative-cultural, social, and passive activities.

In respect of the remaining barriers, overcrowding of facilities appeared to be a substantially more effective obstacle to participation in racquetball/handball, tennis, golf, and downhill skiing, but much less so for creative-cultural, social, passive, and resource-based activities. As might be expected, the lack of partners had the greatest effect on participation in racquetball/handball, tennis, and team sports.

Regional Variations in Desired Activities and Barriers

Differences in desired activities and barriers to participation among the three regions of the province and in Edmonton and Calgary are shown in Tables 11 and 12. As far as regional variations in desired activities are concerned, no statistically significant differences emerged. Thus, from the perspective of the province as a whole, and all types of activity as a set, differences can be essentially attributed to chance occurrence. Nevertheless, some of the more extreme statistics depicted in Table 11 may be worth recognizing. For example, the desire for racquetball/handball was lowest in the northern region and highest in Edmonton, the desire for downhill skiing was lowest in the central region and highest in the northern region, and the desire for resource-based activities was lowest in Edmonton and highest in the southern region.

There also were no substantial regional variations in the perceived effects of barriers to participation (Table 12). Differences were statistically significant for only four of the fifteen barrier statements. In these cases, the price of gasoline was more frequently cited as a barrier in the southern region but less so in Edmonton and Calgary. Admission charges and fees were also felt more strongly in the southern region than elsewhere, especially the northern region. Overcrowding of areas and facilities was viewed as a problem by Calgary residents in particular. And, although the difference was statistically significant, there were no substantial regional differences for lack of opportunities as a barrier.

Taken together, these findings suggest that few if any important differences between regions in terms of desired activities and perceived barriers may be discerned. It is therefore reasonable to proceed with the remainder of the analysis using the sample as a whole rather than regional subdivisions.

TABLE 11

REGIONAL DIFFERENCES IN DESIRED ACTIVITIES

DESIRED ACTIVITY	Southern Region %	Central Region %	Northern Region %	Calgary %	Edmonton %	Total %
Creative, social, passive	5.4	7.1	5.4	6.6	7.8	6.8
Racquetball	13.8	15.2	7.1	12.0	16.6	14.1
Tennis	8.4	6.4	7.1	9.9	9.9	8.7
Other exercise-oriented	21.6	27.0	28.6	19.8	25.9	23.9
Team sports	9.6	10.3	14.3	12.0	9.0	10.5
Self-propelled	12.6	12.8	12.5	13.2	12.5	12.8
Golf	4.2	7.1	5.4	7.5	5.5	6.3
Downhill skiing	9.0	5.7	12.5	8.7	6.4	7.5
Resource-based	15.6	8.5	7.1	10.5	6.4	9.4

Chi-square = 34.80; d.f. = 32; not significant

TABLE 12

REGIONAL DIFFERENCES IN IMPORTANCE* OF BARRIERS TO PARTICIPATION: SUB-SAMPLE

Barrier**	Southern Region %	Central Region %	Northern Region %	Calgary %	Edmonton %	Total %	P
Family commitments	58.4	55.3	62.1	55.0	54.1	55.6	n.s.
Work commitments	72.1	68.8	70.0	73.0	71.4	71.2	n.s.
Physical ability	19.4	20.3	13.8	23.2	21.8	21.1	n.s.
Price of gasoline	37.4	29.3	26.7	23.8	21.5	26.6	.005
Artistic ability	16.4	18.8	14.3	16.2	16.2	16.8	n.s.
Admission & fees	50.3	42.9	31.6	48.5	43.6	45.2	.008
Site unknown	39.3	44.4	39.7	43.6	44.0	43.1	n.s.
No others	56.6	53.6	50.8	61.1	60.7	58.0	n.s.
Equipment costs	58.9	52.6	60.0	51.4	52.7	53.0	n.s.
Learning unknown	31.0	32.3	28.1	30.6	33.4	31.8	n.s.
Overcrowding	63.6	60.4	56.1	72.0	62.6	64.5	.0004
Shyness	30.3	28.9	29.3	26.2	32.9	29.5	n.s.
No opportunity	57.3	60.5	58.3	53.6	58.4	57.4	.006
Physically unable	14.0	11.2	5.3	13.3	8.2	11.0	n.s.
Lack of transport	15.1	16.7	14.0	17.1	19.5	17.3	n.s.

* Percentages = proportion responding "Sometimes" or "Always a problem"

** In order of administration in questionnaire

Socio-economic Variations in Desired Activities

Earlier in this report, it was established that significant and often substantial differences emerged in the desire for a new recreational activity (regardless of the nature of that activity) among sub-groups of the sample defined according to seven socio-economic and demographic variables. However, it is also important to know precisely what types of activity were desired by each of these sub-groups. In order to identify such differences, a series of tests of association were conducted between the seven socio-economic and demographic variables listed in Table 13, and the type of new or additional recreational activity desired, (grouped according to the amended classification). For this purpose, the proportions of respondents who did not express a desire for a new or additional recreational activity were excluded from the analysis, since their inclusion would have exerted an undesirable and obscuring effect on the identification of statistically significant socio-economic differences in the type of recreational activity desired.

Examination of Table 13 shows that statistically significant differences in the type of new recreational activity desired emerged in the case of four of the seven variables, these being age, sex, education, and income. Consequently, individual tables showing associations with these variables were prepared and are presented as Tables 14 to 17. Since the differences were not statistically significant for the type of household, size of household, or length of residence in Alberta, individual tables for these variables were not prepared.

Perhaps the most striking feature of the data depicting age variations in activity desires (Table 14) is the fact that the desire for exercise-oriented activities ranked first among all age-groups, although the desire for this class of activities did increase somewhat with increasing age, being roughly ten percentage points higher among respondents aged 45 and over compared with those aged 44 or less. Beyond this finding, there was far less consistency in activity desires among age-groups. For example, there was a decline in rank position and in the frequency with which a desire was expressed both for racquetball/handball and team sports with advancing age, whereas the reverse was the case for

TABLE 13

SUMMARY OF SIGNIFICANCE LEVELS FOR ASSOCIATIONS BETWEEN SOCIO-ECONOMIC VARIABLES AND DESIRED ACTIVITIES

Variable	Chi-square	Degrees of Freedom	Significance level
Age	132.08	32	.0000
Sex	74.99	8	.0000
Education	43.99	24	.008
Income	47.34	32	.04
Type of household	34.90	24	n.s.
Size of household	44.30	32	n.s.
Length of residence in Alberta	25.50	24	n.s.

TABLE 14

AGE VARIATIONS IN DESIRED ACTIVITIES

Desired Activity	Up to 24		25 to 34		35 to 44		45 to 64		65 or older	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Creative, social, passive	4.7	8	6.8	8	4.8	9	9.1	3	20.6	2
Racquetball	21.6	2	15.4	2	11.9	4	4.8	9	5.9	6
Tennis	9.8	5	9.4	5	9.0	6	7.0	7	0.0	-
Exercise-oriented	22.7	1	21.6	1	23.3	1	31.2	1	35.3	1
Team sports	13.7	3	12.0	4	5.7	8	8.1	6	2.9	7
Self-propelled	11.8	4	14.2	3	14.3	2	9.1	3	8.8	5
Golf	0.4	9	3.4	9	10.0	5	16.1	2	11.8	4
Downhill skiing	6.3	7	9.2	5	8.1	7	5.9	8	0.0	-
Resource-based	9.0	6	7.8	7	12.9	3	8.6	5	14.7	3

golf and for creative-cultural, social, and passive activities. The desire for tennis was approximately equal among the three groups aged up to 44 but declined thereafter. The age trend for self-propelled activities resembled that for tennis, although the decline in desire with advancing age was not as marked as in the case of tennis. The desire for downhill skiing was slightly higher among intermediate age groups, and there was no constant or recognizable trend discernable in the desire for resource-based activities.

Beyond the consistent desire for exercise-oriented activities among all age-groups, desires for new or additional recreational activities according to age may be summarized as follows: the age-group up to 25 would most like to participate in racquetball/handball, team sports, and self-propelled activities; respondents aged between 25 and 35 would most like to try racquetball/handball, self-propelled activities, and team sports; those in the 35-to-44 category most frequently expressed the desire for self-propelled and resource-based activities, and racquetball/handball; respondents aged between 45 and 64 most desire golf, self-propelled, and creative-cultural, social, and passive activities. The oldest age-group was characterized by the desire for creative-cultural, social, passive and resource-based activities and golf; no desire was expressed among this group for the relatively more active pursuits such as tennis and downhill skiing, and very little for racquetball/handball or team sports.

As far as differences in activity desires between males and females are concerned (Table 15), the desire for golf and resource-based activities was substantially more frequent and ranked higher among men than among women. Females, in contrast, were more likely to express the desire for creative-cultural, social, and passive activities and tennis. Differences were minor in the case of the four remaining types of recreational activity, although self-propelled activities were ranked two positions higher (second) among females. As in the case of the age variable, exercise-oriented activities ranked first among both groups, with a slightly higher frequency of desire expressed by females than by males.

TABLE 15

SEX VARIATIONS IN DESIRED ACTIVITIES

Desired Activity	Males %	Males Rank	Females %	Females Rank
Creative, social, passive	4.6	9	10.5	5
Racquetball	15.2	2	12.3	3
Tennis	6.6	8	12.3	3
Exercise-oriented	21.5	1	28.8	1
Team sports	11.3	5	8.8	6
Self-propelled	11.9	4	14.0	2
Golf	8.6	6	2.3	9
Downhill skiing	7.8	7	7.2	7
Resource-based	12.6	3	3.7	8

Consistent and meaningful differences in activity desires on the basis of respondents' levels of education are rather more difficult to discern than for age and sex. Furthermore, relative differences between groups were not as marked as before. The most important differences depicted in Table 16 were that a slight increase emerged in the desire for creative-cultural, social, passive and self-propelled activities with increasing education, and that racquetball/handball was the most desired activity among university-educated respondents. Beyond these findings, however, it is apparent that an examination of respondents' education provides relatively little insight into socio-economic variations in desires for new or additional recreational activities.

Similarly, there were few meaningful or substantial differences in activity desires apparent when the sub-sample was divided into groups on the basis of respondents' family income (Table 17). Those worth noting were the general decline in the desire for creative-cultural, social, passive, and exercise-oriented activities with increasing income, and the increase in the desire for golf, self-propelled, and resource-based activities.

In conclusion, it may be inferred that while statistically significant differences in the type of new or additional recreational activity desired did emerge according to respondents' educational levels and total family income, these differences were less important than those which emerged between sub-groups of the sample defined according to their age and sex.

Socio-economic Variations in Barriers to Participation

In addition to determining which barriers inhibit participation in which types of recreational activity, and identifying socio-economic variations in desired activities, it is also important to know how various socio-economic groups evaluate barriers to participation. On this basis, recreation policy-makers, planners and managers may take steps to relax the effects of obstacles among specific socio-economic groups wherever possible.

TABLE 16

EDUCATIONAL VARIATIONS IN DESIRED ACTIVITIES

Desired Activity	Less than High School		High School		Some Post-secondary		University	
	%	Rank	%	Rank	%	Rank	%	Rank
Creative, etc.	5.6	9	6.3	9	6.3	7	8.6	5
Racquetball	14.4	2	13.1	2	12.5	3	18.4	1
Tennis	7.9	6	10.0	5	8.7	6	7.8	8
Exercise-oriented	28.1	1	24.4	1	25.5	1	17.2	2
Team sports	9.8	4	13.1	2	10.7	4	8.2	6
Self-propelled	6.5	7	8.6	6	16.2	2	14.8	3
Golf	6.5	7	6.8	8	5.3	8	7.4	9
Downhill skiing	8.8	5	10.4	4	5.1	9	9.4	4
Resource-based	11.6	3	7.2	7	9.9	5	8.2	6

TABLE 17

INCOME VARIATIONS IN DESIRED ACTIVITIES

Desired Activity	Less than $10,000 %	Rank	$10,000 to $20,000 %	Rank	$20,000 to $30,000 %	Rank	$30,000 to $40,000 %	Rank	$40,000 and over %	Rank
Creative, etc.	15.3	2	9.9	4	6.0	9	4.7	9	5.3	9
Racquetball	11.1	3	14.0	2	14.6	2	15.5	2	13.7	3
Tennis	9.7	4	9.5	5	9.6	5	6.5	8	8.4	6
Exercise-oriented	34.7	1	26.0	1	21.9	1	20.7	1	21.8	1
Team sports	4.2	8	6.6	8	13.2	3	14.2	3	9.5	5
Self-propelled	8.3	5	13.2	3	11.3	4	14.2	3	14.9	2
Golf	4.2	8	3.7	9	6.6	8	6.9	7	8.0	7
Downhill skiing	6.9	6	7.4	7	9.3	5	7.3	6	6.1	8
Resource-based	5.6	7	9.5	5	7.6	7	9.9	5	12.2	4

The analysis of socio-economic differences in the perception of barriers called for one hundred and five separate tests of association. Given this relatively large amount of data, it is desirable to begin with a summary overview of the findings, so that each individual finding can be interpreted within the context of the results as a whole. Furthermore, an overview facilitates the identification of which socio-economic and demographic variables were most closely associated with perceptions of barriers. Such an overview is presented in Table 18, which summarizes the levels of statistical significance of the relationships between each socio-economic variable and each barrier to participation. It can be seen from the table that income was associated with the largest number of barriers (12), followed by age and type of household (ten barriers in each case). The variables sex and education were both related to nine barriers, but size of household and length of residence were associated with only six and five barriers respectively. In total, approximately 58% of the relationships were statistically significant at the .05 level of probability, which is roughly 12 times the number to be expected as a result of chance occurrence. Specific trends according to each variable are summarized in Tables 19 to 25, on the basis of mean-scores representing the complete frequency distributions of responses to each statement among the members of each sub-group.

Differences between age-groups for five barriers statements - admission charges and fees, equipment costs, overcrowding, shyness, lack of opportunities - were not statistically significant, nor was any recognizable trend apparent for a sixth barrier statement, the price of gasoline (Table 19). Among the relationships which were statistically significant, three main types of relationships are apparent, as follows:

- "inverted u-shape relationships", namely barriers which are more important to intermediate age-groups but less so to the relatively young and relatively old;
- "u-shaped relationships", namely those which are equally more important to relatively young and relatively old age-groups but which decline in importance during middle age; and
- positive linear relationships, which depict the increasing importance of a barrier with advancing age.

TABLE 18

SUMMARY OF SIGNIFICANCE LEVELS FOR ASSOCIATIONS BETWEEN IMPORTANCE OF BARRIERS TO PARTICIPATION AND SOCIO-ECONOMIC VARIABLES

Barrier*	Age	Sex	Education	Income	Type of Household	Size of Household	Length of Residence
Family commitments	.0000	.0001	n.s.	n.s.	.0000	.0000	.01
Work commitments	.003	.0006	n.s.	n.s.	n.s.	.05	n.s.
Physical ability	.0000	.0004	.01	.0004	.004	n.s.	n.s.
Price of gasoline	.001	n.s.	.0000	.0000	n.s.	.008	.02
Artistic ability	.0000	n.s.	.0000	.004	n.s.	n.s.	.02
Admission & fees	n.s.	.03	.05	.0000	.0002	n.s.	n.s.
Site unknown	.0000	n.s.	n.s.	.01	.003	n.s.	.04
No others	.0000	.004	n.s.	.007	.0000	.01	n.s.
Equipment costs	n.s.	n.s.	.05	.0002	n.s.	n.s.	n.s.
Learning unknown	.0001	.005	.03	.02	.005	n.s.	n.s.
Overcrowding	n.s.	n.s.	n.s.	n.s.	.02	n.s.	n.s.
Shyness	n.s.	.0000	.006	.0001	.009	n.s.	n.s.
No opportunity	n.s.	n.s.	n.s.	.02	n.s.	.03	n.s.
Physically unable	.0000	.001	.0000	.0000	.0004	n.s.	.05
Lack of transport	.0000	.0000	.0000	.0000	.0000	.0002	n.s.

* In order of administration in questionnaire

TABLE 19

AGE VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	Up to 24	25 to 34	35 to 44	45 to 64	65 or older	Statistically significant
Family commitments	1.60	1.81	1.81	1.58	1.40	Yes
Work commitments	2.01	2.01	2.20	2.01	1.71	Yes
Physical ability	1.23	1.20	1.23	1.43	1.80	Yes
Price of gasoline	1.35	1.25	1.42	1.36	1.59	Yes
Artistic ability	1.15	1.17	1.16	1.32	1.50	Yes
Admission & fees	1.70	1.63	1.56	1.53	1.68	No
Site unknown	1.80	1.54	1.49	1.61	1.85	Yes
No others	1.99	1.77	1.63	1.72	2.00	Yes
Equipment costs	1.80	1.79	1.71	1.66	1.81	No
Learning unknown	1.61	1.45	1.26	1.44	1.59	Yes
Overcrowding	1.98	1.93	1.90	1.97	1.81	No
Shyness	1.38	1.34	1.32	1.47	1.43	No
No opportunity	1.94	1.85	1.80	1.95	1.95	No
Physically unable	1.09	1.07	1.12	1.31	1.81	Yes
Lack of transport	1.30	1.20	1.15	1.21	1.54	Yes

* In order of administration in questionnaire

Both family commitments and work commitments exhibited inverted u-shaped relationships with age, showing that their importance as obstacles to participation in the desired activity increased from the youngest to the middle-aged groups, but declined thereafter. In contrast, the lack of an appropriate site, of others with whom to participate, of transport, and of an opportunity to learn the desired activity were all substantially more effective barriers for both the youngest and oldest age-groups but were less important for the middle aged. Finally, physical and artistic ability, and being physically unable, all increased in their effects as the age of respondents increased.

Males and females perceived no difference in the importance of barriers in six cases, these being the price of gasoline, artistic ability, site unknown, equipment costs, overcrowding, and the lack of an appropriate opportunity (Table 20). As might be expected, family commitments were a more effective barrier to participation for females than for males, while the reverse was the case for work commitments. In every other case, however, females evaluated the barriers as more significant obstacles to participation than did males.

Responses to six barriers statements did not vary significantly between sub-groups defined by levels of education (Table 21). These were family and work commitments, site unknown, lack of partners, overcrowding, and the lack of an appropriate opportunity. In almost every other case, there was not only a significant decline in the mean-scores with increasing levels of education, but furthermore the mean-scores among the least-educated groups were substantially higher than among the rest.

A somewhat similar set of findings emerged for the relationships between income and the barriers statements (Table 22). Here, only three barriers did not vary significantly with income, these being family commitments, work commitments, and overcrowding. In every remaining case, however, the highest mean-scores, indicating the strongest effect of a barrier to participation, occurred among the poorest income group, namely respondents with a total family income of less than $10,000. In each case also, there tended to be either a decline in the importance of

TABLE 20

SEX VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	Males	Females	Statistically significant
Family commitments	1.66	1.82	Yes
Work commitments	2.09	1.93	Yes
Physical ability	1.22	1.35	Yes
Price of gasoline	1.34	1.33	No
Artistic ability	1.18	1.21	No
Admission & fees	1.58	1.69	Yes
Site unknown	1.58	1.67	No
No others	1.74	1.89	Yes
Equipment costs	1.75	1.79	No
Learning unknown	1.41	1.54	Yes
Overcrowding	1.96	1.91	No
Shyness	1.27	1.55	Yes
No opportunity	1.85	1.96	No
Physically unable	1.11	1.21	Yes
Lack of transport	1.14	1.38	Yes

* In order of administration in question

TABLE 21

EDUCATION VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	Less than High School	High School	Some Post-secondary	University	Statistically significant
Family commitments	1.73	1.68	1.72	1.75	No
Work commitments	1.98	2.06	2.01	2.11	No
Physical ability	1.39	1.22	1.25	1.25	Yes
Price of gasoline	1.58	1.35	1.29	1.19	Yes
Artistic ability	1.36	1.22	1.15	1.13	Yes
Admission & fees	1.74	1.71	1.57	1.55	Yes
Site unknown	1.66	1.61	1.65	1.50	No
No others	1.84	1.81	1.81	1.71	No
Equipment costs	1.89	1.80	1.73	1.69	Yes
Learning unknown	1.49	1.51	1.46	1.35	Yes
Overcrowding	1.95	1.98	1.96	1.88	No
Shyness	1.50	1.39	1.34	1.30	Yes
No opportunity	1.93	1.81	1.91	1.84	No
Physically unable	1.31	1.09	1.14	1.08	Yes
Lack of transport	1.39	1.24	1.19	1.16	Yes

* In order of administration in questionnaire

TABLE 22

INCOME VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	Less than $10,000	$10,000 to $20,000	$20,000 to $30,000	$30,000 to $40,000	$40,000 and over	Statistically significant
Family commitments	1.66	1.68	1.77	1.77	1.66	No
Work commitments	1.87	1.93	2.03	2.09	2.12	No
Physical ability	1.57	1.30	1.23	1.22	1.23	Yes
Price of gasoline	1.78	1.40	1.37	1.23	1.21	Yes
Artistic ability	1.41	1.24	1.17	1.15	1.18	Yes
Admission & fees	2.01	1.70	1.65	1.53	1.47	Yes
Site unknown	1.81	1.68	1.56	1.66	1.54	Yes
No others	2.01	1.85	1.81	1.79	1.67	Yes
Equipment costs	1.96	1.94	1.74	1.66	1.63	Yes
Learning unknown	1.64	1.58	1.39	1.44	1.40	Yes
Overcrowding	1.84	2.00	1.98	1.84	1.97	No
Shyness	1.56	1.49	1.34	1.29	1.29	Yes
No opportunity	2.13	1.94	1.83	1.89	1.85	Yes
Physically unable	1.56	1.15	1.10	1.07	1.12	Yes
Lack of transport	1.69	1.33	1.20	1.12	1.13	Yes

* In order of administration in questionnaire

a barrier with increasing income, or no substantial difference between income groups other than that which occurred between the poorest group and the remaining respondents. Taking these findings together with those concerning education, it may be concluded that increases in both variables serve to relax the effects of barriers to participation. Alternatively stated, while it would not necessarily be true to suggest that the lack of education and income are in and of themselves barriers to recreation participation, they do appear to create circumstances which may enhance the severity of individual specific barriers to participating in recreation. Also, the findings concerning income are consistent with those described in an earlier analysis of recreational preferences, reasons for participating, and the satisfaction of needs, wherein it was concluded that the lack of disposable income may override the effects of motivational and need factors on recreational choice. The findings confirm the previously-advanced hypothesis that the relatively poor represent a special population from the standpoint of recreation participation, for whom barriers to participation are particularly significant.

Since the variable "type of household" is nominal rather than ordinal, the identification of trends between sub-groups is not possible. Rather, it is possible to identify only those barriers which were more or less effective in inhibiting participation in the desired recreational activity among each sub-group defined according to this variable (Table 23). Differences between groups were not significant for five barriers statements, these being work commitments, the price of gasoline, artistic ability, equipment costs, and the lack of an appropriate opportunity. Perhaps the most striking aspect of the findings depicted in Table 23 is the fact that in almost every case, respondents from households consisting of couples without children gave the lowest ratings to barriers. This may indicate a number of reasons, including fewer family and other commitments, younger age, and higher disposable income. It is also interesting to note that only in the case of family commitments did respondents from households consisting of couples with children give a higher mean-score than any other type-of-household sub-group. In fact, the most disadvantaged group, i.e.

TABLE 23

TYPE-OF-HOUSEHOLD VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	Couple with children	Couple with no children	Single-parent family	One or more unrelated	Statistically significant
Family commitments	1.91	1.56	1.90	1.34	Yes
Work commitments	2.08	1.99	1.90	2.02	No
Physical ability	1.24	1.25	1.56	1.29	Yes
Price of gasoline	1.36	1.29	1.45	1.28	No
Artistic ability	1.20	1.17	1.35	1.20	No
Admissions & fees	1.62	1.50	2.03	1.62	Yes
Site unknown	1.56	1.66	1.67	1.70	Yes
No others	1.70	1.80	2.03	1.98	Yes
Equipment costs	1.80	1.67	1.92	1.74	No
Learning unknown	1.39	1.45	1.57	1.60	Yes
Overcrowding	1.92	1.95	1.87	1.97	Yes
Shyness	1.35	1.28	1.44	1.46	Yes
No opportunity	1.87	1.91	1.87	1.89	No
Physically unable	1.12	1.16	1.39	1.14	Yes
Lack of transport	1.20	1.11	1.54	1.29	Yes

* In order of administration in questionnaire

that for which the mean-scores were highest or at least second highest for almost all the remaining barriers statements, consisted of respondents from single-parent families. This finding indicates that such individuals suffer from unusually severe constraints in fulfilling recreational desires, thus confirming a hypothesis advanced in the earlier study of recreational preferences. It also suggests that unidentified interaction effects may confound this relationship, since it may well be that, on average, respondents from single-parent families are less well off than others and may also share several other characteristics and attributes which act as obstacles to recreation participation.

Findings concerning variations in barriers between respondents defined according to their size of household are not particularly meaningful or insightful (Table 24). Differences that were statistically significant emerged for only six of the fifteen barriers statements. Not surprisingly, the importance of family commitments as a barrier increased with increasing size of household, and the lack of transportation and of partners was felt most severely by those respondents who live alone. Other than these findings, there does not appear to be much value in considering the effects of household size on barriers to recreation participation.

Finally, relationships between responses to barriers statements and length of residence in Alberta are shown in Table 25. As in the case of the size-of-household variable, the length-of-residence variable was poorly associated with the perceived importance of barriers, since statistically significant differences occurred in only five cases. As far as these are concerned, family commitments were more important to established residents than to relative newcomers, and differences for three other statements - price of gasoline, artistic ability, and physically unable, - while statistically significant, were not meaningful. The only variation which might have practical importance as far as this variable is concerned is the fact that relative newcomers more frequently than others viewed "site unknown" as a barrier to participation, suggesting the need for information programs for this sub-group of the population.

TABLE 24

SIZE-OF-HOUSEHOLD VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	1	2	3	4	5 or more	Statistically significant
Family commitments	1.29	1.46	1.77	1.95	1.94	Yes
Work commitments	2.02	1.98	1.95	2.11	2.14	Yes
Physical ability	1.35	1.28	1.28	1.20	1.27	No
Price of gasoline	1.31	1.31	1.30	1.30	1.50	Yes
Artistic ability	1.21	1.19	1.23	1.15	1.24	No
Admission & fees	1.59	1.58	1.62	1.61	1.75	No
Site unknown	1.62	1.67	1.59	1.53	1.62	No
No others	1.94	1.60	1.79	1.73	1.65	Yes
Equipment costs	1.69	1.71	1.77	1.79	1.89	No
Learning unknown	1.55	1.52	1.39	1.37	1.45	No
Overcrowding	1.92	1.98	1.98	1.89	1.89	No
Shyness	1.52	1.32	1.31	1.37	1.41	No
No opportunity	1.92	1.90	1.92	1.83	1.92	Yes
Physically unable	1.27	1.14	1.12	1.11	1.15	No
Lack of transport	1.38	1.15	1.26	1.19	1.30	Yes

* In order of administration in questionnaire

TABLE 25

LENGTH-OF-RESIDENCE VARIATIONS IN IMPORTANCE OF BARRIERS TO PARTICIPATION

Barrier*	Up to 2 years	2 to 5 years	5 to 10 years	Over 10 years	Statistically significant
Family commitments	1.57	1.58	1.80	1.75	Yes
Work commitments	1.98	2.08	1.96	2.05	No
Physical ability	1.21	1.29	1.24	1.28	No
Price of gasoline	1.17	1.31	1.29	1.36	Yes
Artistic ability	1.08	1.22	1.13	1.22	Yes
Admission & fees	1.64	1.58	1.57	1.63	No
Site unknown	1.73	1.70	1.54	1.59	Yes
No others	1.88	1.87	1.68	1.78	No
Equipment costs	1.69	1.82	1.77	1.76	No
Learning unknown	1.48	1.56	1.37	1.45	No
Overcrowding	1.84	1.52	1.91	1.97	No
Shyness	1.28	1.37	1.34	1.39	No
No opportunity	1.79	1.85	1.87	1.91	No
Physically unable	1.05	1.14	1.08	1.17	Yes
Lack of transport	1.19	1.32	1.19	1.22	No

* In order of administration in questionnaire

Multi-variate Analysis

When the computer analysis of data was planned, it was initially intended to conduct a basic version of multi-variate analysis of several of the relationships described in the preceding pages. This would have involved the re-examination of original relationships (e.g. between desired activities and barriers to participation) under controlled conditions of a third variable (e.g. socio-economic variables), in order to more fully understand the reasons for the original relationships, and the conditions under which they occurred.

The purpose of this further analysis was twofold:

(i) it would demonstrate the extent to which original two-variable relationships were real or spurious due to the effect of the third variable;

(ii) it would forge a statistical link between three sets of variables, by showing exactly which people desired which activities and what were the associated barriers to participation, within the context of a single statistical table rather than the three tables otherwise required.

This form of multi-variate analysis had to be abandoned, however, due to an insuperable problem of data fragmentation. A single crosstabulation between the set of desired activities and any given barrier to participation results in a matrix of 27 cells. Assuming that respondents are equally distributed among the cells, then the theoretical average value in each cell for a sample of 1200 is approximately 44. When the sample upon which each matrix is based is subdivided, and the relationship is re-examined for each category of the control variable, the theoretical average value drops to an entirely unacceptable figure. For example, in the case of the income variable, five separate tables must be constructed, with a theoretical average value of approximately 8 respondents in each cell. Given the uneven distribution of variables and relationships, however, actual values in many cases were less than the theoretical average. There were marked fluctuations in numbers between cells, making interpretation difficult, if not impossible, and certainly not very meaningful from the standpoint of adding to the understanding of the data. As well, the small size of N for each component table means that, even if recognizable trends were to emerge, the level of statistical significance would be low, further exacerbating the problem of interpreting meaningful difference between sub-groups of the sample.

The sole alternative to multi-variate analysis, therefore, is a verbal synthesis based on the two-variable relationships described in the preceding text, and on the consistency of findings among the various components of the study. This forms the basis for the summary statements presented in the last section of Part III of the report.

PART III

SUMMARY OF FINDINGS, IMPLICATIONS AND RECOMMENDATIONS FOR THE SERVICE PROVIDER

DISCUSSION

Miller (1979) has indicated that it is important to be able to identify common barriers that restrict or stop participation. It would appear that the reasons why people participate have been examined quite rigorously while the reasons for non-participation or ceasing participation have been studied to a somewhat lesser degree.

It is important for policy makers, planners, and managers of recreation services to begin to understand the underlying restrictions encountered by individuals who want to participate in recreational activities. In addition, an understanding of barriers allows practioners to evaluate whether or not the ways and means of service provision remain effective and efficient in this rapidly changing world.

Best (1980) in his article "Work and Leisure in the Future", coined the term 'new think'. He stated that the old ways of thinking were still needed (eg. examining participation), where they continue to make sound business sense. However, for areas where solutions have not been found, recreation personnel must "develop flexibility in mind and body that will cope with continuing change, to remove limits and to turn apparent threats into growing opportunities" (p. 268). If the service providers of recreation are going to cope with the changing world and provide meaningful recreation experiences for individuals, a 'new think' attitude may have to be developed. One possible 'new think' approach for recreation would be the examination of barriers to recreation participation within recreation service provision in order to provide better recreation services for the future.

SUMMARY OF FINDINGS, IMPLICATIONS AND RECOMMENDATIONS

Based upon the results of the Public Opinion Survey on Recreation (1981) presented in Part II, the following implications will attempt to develop some practical considerations for those involved in the policy development, planning and management of recreation services.

The survey sought to answer the following questions, and it is on this basis that the summary of findings is organized:

- in what activities would Albertans like to participate but currently do not?
- in what respects do Albertans who desire a new or additional recreational activity differ from those who do not?
- what is the relative strength and importance of barriers to participation?
- how do the effects of these barriers vary between types of recreational activity?
- to what extent do desired activities and perceived barriers vary spatially across the Province of Alberta?
- in what ways do desired activities and perceived barriers vary between respondents defined according to socio-economic and demographic variables?

The review of the literature presented in Part I provides information from many studies that may also aid the service provider in understanding barriers to recreation participation.

The implications will have two main thrusts: 1) those barriers imposed or under some control of the service provider and, 2) the barriers over which some control may be exercised by the individual.

a) Desired activities

- 1240 survey respondents (51.1% of the sample) identified a recreational activity in which they would like to participate but did not because of the effects of one or more barriers. The remaining 48.9% (presumably the uninterested) did not report an additional desired activity.

- 69 specific activities were listed, which for the purpose of computer analysis were classified into nine activity groups plus an "other" group;
- in rank-order, the desired types of activity were:
  (1) exercise-oriented activities excluding racquetball/handball and tennis (listed by 23.5% of the 1240 respondents desiring a new or additional activity);
  (2) racquetball/handball (13.7%);
  (3) self-propelled and/or non-mechanized outdoor recreational activities (12.3%);
  (4) team sports (10.1%);
  (5) resource-based activities (hunting, fishing, camping, and mechanized outdoor recreational activities) (9.1%);
  (6) tennis (8.4%);
  (7) downhill skiing (7.4%);
  (8) creative-cultural, social, and passive indoor leisure activities (6.5%);
  (9) golf (6.0%);
  (10) other (2.9%).

Implications

Approximately one-half of the respondents desired participation in recreation activities but a majority did not act on this because of one or more barriers. The three most desired types of activity are 'exercise oriented activities'; racquetball/handball; and 'self propelled and/or non-mechanized outdoor recreation activities'.

It is important in examining the overall recreation service, that there be a balanced and varied approach to activity provision. It is also important to discard obsolete programmes and introduce programmes that will appeal to the public. In addition, it is important for the planners, policy developers and managers to be aware of new recreation focuses and trends in order to supply relevant and adequate opportunities for comprehensive service.

The desired activities also have implications with regard to the economic conditions of today and of the future. It would appear that during the depression years, recreation participation was very high though spending on recreation was low. There is reason to believe that low cost or no cost activities, will become increasingly popular. It is also important to consider equipment costs for activities as well as the proximity of the activity to the user.

In examining the activities themselves, there is an indication that individuals have concern for personal health in their lifestyle. For the service provider considering leisure education programmes, this is one means of meeting the needs of the individual. The literature indicates that it is not just the provision of quality activities that is the key but that interpersonal interaction is also critical. Therefore, one must consider both mental and physical health within the range of lifestyles prevalent today.

It would appear that planners and policy developers at various levels and in many service areas must ensure that many considerations are examined thoroughly so as to provide the most comprehensive recreation services possible with what appear to be decreasing resources.

Recommendations

(i) That recreation service providers undertake various types of needs surveys to determine actual desired activities.

(ii) That recreation service providers develop a mechanism to identify obsolete programmes so that they may be removed from the service repertoire and resources reallocated to desired activities.

(iii) That recreation service providers be proactive with respect to the acquisition of current information, and anticipate future trends in the provision of relevant and adequate opportunities for comprehensive service.

(iv) That providers should undertake constant examination of the overall recreation service so that there is a balanced and varied approach to service provision in the sense of both experiences and types of participation (ie. individual and interpersonal).

b) Respondents desiring and respondents not desiring a new activity

The proportion of respondents desiring a new activity, or alternatively the proportion expressing a lack of interest in a new activity did not remain constant throughout the sample but varied significantly among sub-groups defined according to socio-economic and demographic variables. The main trends were as follows:

- increasing lack of interest in a new activity with advancing age and with increasing length of residence in Alberta;
- increasing desire for a new activity with increasing levels of education and annual family income;
- lowest levels of desire for a new activity were expressed by respondents aged 45 and over, those who had not completed high school, those with an annual family income of less than $10,000, and those resident in Alberta for ten years or more;
- greatest interest in a new activity was expressed by respondents aged up to 34, relative newcomers to the Province, university-educated respondents, and those with an annual family income exceeding $10,000.

Implications

It was indicated that there was a 'lack of interest in a new activity with advancing age'. This finding with regard to advancing age is consistent with previously reported literature.

This is of particular importance in that the population of Canada and Alberta is aging fairly rapidly. The recreation service delivery system must examine its offerings to determine if there is appropriate and adequate provision for the aging population. There must also be a concerted effort to find new and better ways of involving this group.

Simultaneously at the other end of the life cycle, there appears to be somewhat of a 'baby boom' occurring which will necessitate more adequate service provision to the very young so that participation in recreation will start at the younger age and hopefully continue throughout life. If this can occur, then the above mentioned finding regarding considerations for older age groups may begin to correct itself. Thus the service provider and the individual must consider the dynamic nature of lifestyle through the various stages of the life cycle.

People with higher education and income had increasing desires for new activities. Once again this is consistent with previously reported findings. The implications are many, but perhaps the main consideration is whether only one stratum of the population is taking advantage of the majority of the recreation service. Several other considerations might include: (i) whether recreation services of today cater to what is defined as the middle or upper middle class and if so, why; (ii) whether the policy developers, planners and managers at various levels truly understand the needs of those individuals of the lower classes or the upper classes; and (iii) whether providers regularly examine their services to determine who participates.

The distribution of services is a factor when examining who receives recreation services. Crompton (1982) indicates that the 1980's will be an "era of retrenchment" (p. 67) due to the fact that when services decline (quantity and/or quality) people tend to examine distribution of services and the fairness of that distribution. This, coupled with targeting of certain populations brings forth the question of equity and equality in recreation service provision. Choices will have to be made based on rational justification of the target group and the physical, social and economic environments present in a given situation.

The overall consideration is that socio-economic/demographic information is very important to understanding the needs and desires of individuals and that it is imperative that recreation service providers are aware of the demographic information related to the populations they are serving. It is also necessary to look at socio-economic/demographic trends for future planning and service.

There must be an ongoing awareness of information such as the latest census data, economic studies etc. from such sources as the Federal, Provincial and Local Governments. In other words, there must be a continual examination of data from allied fields that will support the development of short and long term comprehensive recreation services based on relevant client needs and population numbers for each particular service provider's area.

Recommendations

(i) That recreation service providers develop and maintainsocio-economic/demographic information profiles of potential client groups for both present consideration and future planning of services.

(ii) That recreation service providers determine the socio-economic/demographic information of client groups served by their programmes.

(iii) That the above information regarding the general population profile and the actual population profile of the clients receiving services be compared to determine populations that are excluded or have not been receiving adequate, if any, services.

(iv) That populations which show non-involvement, or lesser degrees of involvement than other populations, should be considered for in-depth study to attempt to determine if there are specific barriers to participation for these groups.

c) Relative importance of barriers to participation

Based on the proportion of respondents evaluating them as "sometimes" or "often a problem", the following was the rank-order of barriers to participation:

	Percent of respondents desired an additional activity
* Work commitments	(71.3%)
Overcrowding of facilities or areas	(64.4%)
* Lack of partners	(58.1%)
Lack of close opportunity	(57.5%)
* Family commitments	(55.8%)
Price of recreation equipment	(53.2%)
Admission fees and user charges	(45.3%)
Unawareness of where to participate in the activity	(43.1%)
Unawareness of where to learn the activity	(31.8%)
* Shyness	(29.4%)
Price of gasoline	(26.7%)
* Not having physical abilities	(21.1%)

Lack of transportation	(17.6%)
* Not having artistic or creative abilities	(16.8%)
* Being physically unable to participate	(11.2%)

* Personal/social barriers

Implications

There appear to be two main types of barriers: The first grouping (*) appears to focus upon the individual while the remainder focus upon the service provider. The implication is that there must be better understanding of the individual, his needs, wants and desires in relation to service delivery and its capabilities as a provider.

There appears to be increased individual and social alienation within our society and the service provider has, in many instances, not been attempting to reduce this condition in the provision of recreation services. It would appear from the findings that people are expressing a desire for more interaction with other people and that they look toward recreation as a means to obtain this interaction.

Perhaps recreation service providers have become preoccupied with the 'things' (facilities, equipment) aspect and have lost touch with the interpersonal components of participation that are becoming increasingly important to clients of today. There is a need to examine services from the 'interpersonal' viewpoint to ensure personal satisfaction for the individual. Possible avenues which might be explored to achieve this include a re-examination of what the' server' role entails, a thorough understanding of that role by the recreation provider, and a recommitment of the policy developer, the planner and the manager to make concerted efforts to contact clients as individuals.

There are many programmes being offered through departments of extension associated with colleges, technical institutes and universities that examine the role of the service provider. In addition, the Institute of Public Administration of Canada and its Branches offer information and seminars in this regard. The entire concept of public service is also being reconsidered in light of Canada's new Constitution and, in particular, the Canadian Charter of Rights and Freedoms contained within the document (The Canadian Constitution, 1981). The public servant will have to become concerned not only with the jurisdiction of service provision but also the content of that service. This document alone is cause enough for service providers, particularly those working in the public domain, to become aware of the roles and responsibilities of service provision and the associated rights of the citizen (The Canadian Constitution, 1981).

The development of needs surveys which would be administered via face-to-face interaction might be one way for practitioners to initiate personal contact with clients. Personal contact with interest and/or age specific groups could possibly be another way of better understanding the individual.

The above suggestions are usually met with the response that, 'it is too expensive'. However, if recreation service providers truly wish to provide appropriate, meaningful service, these avenues, plus others, must be explored such that the provider is brought closer to the individual. It would appear that the phrase 'it is too expensive' has become a great solace to the service provider who can avoid client dissatisfaction and maintain the status quo.

It is also necessary for recreation service providers to undertake the complex task of understanding all the facets of each barrier and developing services that will attempt, as comprehensively as possible, to overcome barriers for all clients. When service providers become more knowledgeable of people rather than 'things', the shifts and trends toward meeting the interpersonal needs of the client through recreation participation will become increasingly evident.

Recommendations

(i) That recreation service providers undertake studies that will bring forth information identifying possible barriers to recreation participation within that authority;

(ii) That these studies of barriers should be approached from the point of view of identifying barriers that are unique to the service provider and those that are unique to the client groups of that authority;

(iii) That recreation service providers review the orientation of their philosophy of service provision with respect to emphasis placed upon facilities versus programmes. Personal satisfaction of the individual must be ensured through efforts to increase interpersonal interaction and reduce alienation toward the provider by the client; and

(iv) That recreation service providers acquire education or re-education as to the role of the service provider in relation to client rights to recreation services.

d) Activity-specific barriers

The perceived importance of barriers to participation depended in part on the type of activity desired. The most important barriers corresponding to each activity-type were as follows:

- exercise-oriented activities: work commitments, overcrowding, lack of opportunity, lack of partners;
- racquetball/handball: work commitments, overcrowding, lack of opportunity, lack of partners, admission fees and user charges;
- self-propelled activities: equipment costs, work commitments, lack of opportunity, lack of partners, unawareness of where to participate;
- team sports: work commitments, overcrowding, lack of opportunity, lack of partners, unawareness of where to participate;
- resource-based activities: price of gasoline, equipment costs, work commitments, overcrowding, lack of opportunity, lack of partners;
- tennis: work commitments, overcrowding, lack of opportunity, lack of partners, shyness;
- downhill skiing: work commitments, equipment costs, fees and charges, price of gasoline, overcrowding, lack of transport, not having physical abilities, family commitments;
- creative-cultural, social, and passive activities: work commitments, lack of opportunity, unawareness of where to participate, unawareness of where to learn the activity, lack of artistic or creative ability, equipment costs;

- golf: work commitments, overcrowding, equipment costs, family commitments, fees and charges.

Implications

Although the literature did provide some indication as to barriers that surround certain activities, it was not exhaustive or conclusive. However, it did give some indication to the service provider of obstacles that would have to be considered in undertaking the provision of certain activities.

The 'work commitments' barrier could indicate that there is a need for consideration of such things as flextime, the compressed work week, and better scheduling or that there should be opportunity built into or near the work environment. The 'lack of opportunity' barrier could indicate such things as not enough provision of activities, inappropriate or lack of marketing of activities, or poor locations. 'Overcrowding' could indicate lack of provision of an adequate number of opportunities, poor facilities, or scheduling problems, while 'lack of partners', might indicate a lack of interpersonal skills, a lack of consideration of the individual by the service provider, or that a person is new to the area. These are but a few very cursory indications of how activities and barriers have implications for the service provider. Overall the provider must be willing to examine and change, where needed, those approaches which have been stereotyped in the provision of services of recreation. It would appear that the provider often serves in the easiest and most convenient way possible for the service provider and the system within which he must function, rather than meeting the needs of the participant.

The provider also must critically examine the attitude and philosophy upon which service is based. The 'mass medicine' approach whereby one type/kind of programme is good for all may have to be changed to a more personal, responsive method of programming in order to provide more successful and beneficial recreation services.

The above examinations must be done in a thorough manner and must result in documentation so that some consistency can be achieved between and amongst activities and the specific situations in which they occur. This, however, must not preclude a degree of flexibility being built into such documentation in order to consider the specific effects of a given situation relative to the socio-economic/ demographic variations which will occur.

Recommendations

(i) That once barriers to recreation participation are determined, an in-depth analysis occur in order to fully understand all the facets of that barrier, as well as the many different ways in which it is viewed; and

(ii) That recreation service providers develop information as to which particular barriers might be prevalent in relation to the provision of certain activities for the client groups of that authority.

e) Regional variations in desired activities and barriers

No substantial or important differences in desired activities or the effects of barriers to participation were discerned among respondents from Calgary, Edmonton, and the southern, central, and northern regions of the Province.

Implications

Although for this study, this particular area did not provide data which was statistically significant, it should not be dismissed totally. There is some indication in the literature that regional variations could have some bearing particularly when considering supply.

Recommendation

That recreation service providers be cognizant of possible regional variations in desired activities and barriers in relation to supply.

f) Socio-economic differences in desired activities and perceived barriers to participation

(i) Age

In the following summary of findings, the most-desired activities among each age-group are listed in rank-order. As far as the perceived barriers were concerned, the relative importance remained roughly the same across all age-groups, and therefore only those barriers checked more frequently by the members of each age-group are listed.

- respondents aged 24 or less most desired exercise-oriented activities, racquetball/handball, team sports, and self-propelled activities. This group was more inhibited than others from participating by lack of opportunity, partners and transportation, and unawareness of where to learn the activity;
- respondents aged 25 to 34 most desired exercise-oriented activities, and racquetball/handball. This group was more inhibited by family and work commitments;
- respondents aged 35 to 44 most desired exercise-oriented, self-propelled and resource based activities as well as racquetball/handball. This group was more inhibited than others by family and work commitments.
- respondents aged 45 to 64 most desired exercise-oriented, self-propelled, creative-cultural, social, and passive activities, and golf. This group was more inhibited by lack of physical and artistic ability;
- respondents aged 65 or over most desired exercise-oriented, creative-cultural, social, passive, and resource-based activities, and golf. This group was more inhibited by a large number of barriers, including lack of physical and artistic ability, being physically unable, lack of partners and transportation, price of gasoline, and unawareness of where to learn or participate in the desired activity.

Implications

This particular focus is consistent with findings throughout the literature and is very important with regard to barriers encountered. It would appear that the twenty-four and under age groups do not participate due to various reasons related to the individual or due to lack of provision by the service agency. The twenty-five to approximately forty-five year old age group look to family and work as overriding barriers to participation. This lends support to the importance of family life-cycle and the presence of children to recreation participation. That is, the recreation service provider must be cognizant that the family and its welfare is of high priority to this age group. The provider can use this to advantage by developing and providing services to accommodate the child/children so as to provide an entry through which the parents can become involved as well.

The age groups of forty-five to sixty-four and sixty-five and over indicated abilities and physical inability as barriers. The literature again is consistent with these findings, but also indicates a possible myth about the frailty of the older person.

For the service provider it is important to know the age breakdown of those individuals partaking of the programmes on a continual basis. With this information the provider can start to determine if the services are comprehensive in the sense of serving the specific needs all age groups. It would also be very important to obtain age profiles of the service area residents to determine if one age group is over represented in terms of programs/services and to review this in the provision of services. Also, age appropriateness in programmes should be examined. It would seem that for some ages this could be advanced as an area of concern and may explain why these groups are not involved in the utilization of services.

Recommendations

(i) That recreation service providers review services in relation to age groupings of the clients served to determine if there are age gaps; and

(ii) If age gaps are found, they should be reviewed in relation to possible barriers to participation as perceived by these individuals.

(ii) Sex

- both males and females ranked exercise-oriented activities as the most desired, but men preferred golf and resource-based activities more than women. Women preferred tennis and creative-cultural, social, passive and self-propelled activities more than men;

- the only barrier felt more severely by males than females was work commitments; all other barriers for which there was a statistically significant difference were felt more severely by females than males.

Implications

There appears to have been a change recently with regard to male/female participation and barriers which effect that participation. Perhaps as the female becomes more involved in her own lifestyle, her participation will not differ from the male. Also, work commitments of the female might become more significant when careers are considered. An indication was given that females might differ in some of the activity selections but have the same satisfaction as the male.

It is important, therefore, to be aware of the individual and his or her needs and not assume that what is presently provided for males is what the female will necessarily require to meet her needs. Likewise, it is important for males to be free to determine their programme needs on an individual basis so as not to be placed in stereotyped activities prescribed for males.

With the increase in female participation it might be possible to target market programmes in order to further involve females. However, there is the caveat that target marketing aimed at a specific group should not jeopardize the principle of provision of services to meet individual needs.

Recommendations

(i) That recreation service providers examine their service provision in relation to sex and determine if there is adequate opportunity for participation of both sexes; and

(ii) If discrepancies in opportunity exist, they should be reviewed in relation to possible barriers to participation as perceived by affected individuals.

(iii) Education

- there were no substantial differences in desired activities between sub-groups of the sample defined on the basis of their levels of education;

- however, there were significant education-based differences in the perception of barriers. The least-educated group felt all barriers for which there were statistically significant differences more severely than the rest, and there were also recognizable declines in the effects of barriers as educational levels increased.

Implications

Once again, the findings of this study and previous literature are consistent in identifying the importance of education in understanding barriers to recreation. It is important that the recreation service provider determine whether or not the services being provided are accommodating the vast range of education levels and that the barriers, or the facet of barriers which tend to exclude potential participants on the basis of education, be streamed out of the provision of that service.

It would appear that service providers are offering programmes which tend to attract certain education segments of the population rather than the population education extremes.

Advertising of services must attempt to educate the public and increase the range of recreation opportunities available to individuals by exposing them to new experiences from which they may gain satisfaction. Once again target markets could be utilized to involve the population extremes with regard to education levels. However, again a caution is expressed that the individual and his needs should always be the primary focus of any such marketing venture.

When services are advertised or presented to the public it must be done in such a way that all educational levels can understand the potential benefits.

There is some indication that leisure education might have a contribution to make in dealing with the disparities in recreation participation based on education level. Just as leisure education can enhance the transition of special groups from institution to community, it is conceivable that this same tool could be utilized effectively for those of all education strata. Individuals can be made aware of the place of leisure within their lifestyle throughout their total lifespan in addition to being provided with information on how to access the services available to them. The potential for effective leisure education programmes is very great if they can be placed within the recognized education system at levels where attendance is compulsory.

Recommendations

(i) That recreation service providers examine their services to determine if they are merely serving the more highly educated segments of the population; and

(ii) If discrepancies in opportunity exist, they should be reviewed in relation to possible barriers to participation as perceived by those of the lower education groups.

(iv) Income

- there were no substantial differences in desired activities between sub-groups of the sample defined on the basis of their annual family income;
- however, there were significant income-based differences in the perception of barriers. Respondents with an annual family income of $10,000 or less felt all barriers for which there were statistically significant differences more severely than the rest, and there were also recognizable declines in the effects of barriers as income levels increased.

Implications

There are indications that higher income groups feel fewer barriers. The finding, which is consistent with previously reported literature, is that present recreation services are engaged in by those who are most able to finance their own recreation (Morris et al., 1971, p. 29). The recreation service providers tend to attract the higher income groups, particularly the middle class, to their programmes. It seems that the service provider has to become aware of the recreation needs of the lower income person in relation to the barriers to participation that are being identified (e.g., cost, skill, logistics (Levy, 1977)). The providers also must determine exactly which clientele are actually being served by present service.

The marketing and the promotion of programmes must also be examined and, once again, perhaps target marketing would play a role in remedying barriers due to income restrictions.

Those involved in the development of policy regarding fees and charges must avoid the creation of a welfare class of lower income citizens. To elaborate, at the present time, fees are established which seem to accommodate middle and upper level income groups (Ovenden, 1982). Therefore, lower income groups cannot afford to become involved in recreation. However, in some instances, fees and charges policies try to accommodate lower income groups by allowing individuals to participate for free if they can prove they cannot pay. This, of course, is dependent upon the awareness of such a policy by individuals having low incomes. The result is a creation of a we/they, user/non-user, have/have not situation which may further compound the alienation felt by lower income citizens. In addition, and to reiterate another caveat, the service provider must not lose sight of the needs of individuals who compose the various income levels.

Leisure education may also have a role in developing the leisure lifestyle of lower income groups as well as in creating an awareness of the range of recreation opportunities available.

Recommendations

(i) That recreation service providers determine if their services adequately accommodate all income strata. This could be accomplished by comparing the economic profile of the population of the community with the profile of those actually participating;

(ii) If discrepancies exist, then the providers should determine what barriers, or portions thereof, are restricting recreation participation; and

(iii) That recreation service providers should review fees and charges policies and other policies that may influence restriction by income.

(v) Type of household

- there were no significant differences in desired activities between sub-groups of the sample defined on the basis of their type of household;

- couples without children were the least affected by all barriers than any other groups, and the only barrier felt more severely by couples with children than by others were family commitments.
- the most disadvantaged group was composed of those from single-parent families, who felt almost all barriers for which there were statistically significant differences, more severely than other groups.

Implications

The significance of the family life-cycle was also evident in the review of literature. The implications for the service provider are many. There appears to be a need for better understanding of the family life-cycle and its importance in reducing barriers to recreation participation. The service provider should examine the barriers in relation to not only the traditional view of the family, but what is happening presently and what is projected for the future with regard to the family and its composition.

At the July 1979 World Futures Conference held in Toronto, a session on the future of the family indicated that the family would be "a series of sequential monogamous relationships" and that children would be attached to that defined family unit at any point in time (Best 1980). The service provider may not be faced with this extreme at this time, but he is faced with such household groupings as an increasing number of single parent families (with the single parent occasionally now being male) and the family that has a disabled or elderly member. It would seem that providers must be aware of these changes in the family and respond accordingly with appropriate opportunities. Further, the understanding of these family types can give a clue to barriers that have to be considered such as: time constraints; logistic problems; economic constraints; companionship; peer influence; etc. Once such barriers are identified and eliminated, it will be possible to create a positive environment which will foster increased participation.

Service providers must create a more positive and accepting setting for non-traditional, different or unique groupings, although this should not occur at the jeopardy of the traditional family. Preparation is required by the service provider to support the entry of these individuals into recreation participation.

The term household must also be considered from the true sense of household and not family. In our present society, there are groupings of individuals who occupy and use the term household for such reasons as lack of housing or financial considerations (Bairston 1982). These individuals need not be related and may not have the same recreation needs. To this end, changes in the definitions of family, household, etc. or new definitions used in regulations such as user fees and charges policy should be considered very carefully.

Recommendations

(i) That recreation service providers understand the relationships between type of household and the effect of barriers on it with respect to recreation participation; and

(ii) That recreation service providers review barriers in order to identify gaps in service provision to such populations as singles, single parent families, and so on.

(vi) Size of household

- there were no significant or substantial differences either in desired activities or perceived barriers according to size of household.

Implications

Although there is no statistical significance indicated with regard to this variable and barriers, the review of literature does suggest that this factor may have some importance. Previous studies indicated that family participation was high when first formed by marriage and dropped off as children were born. Families with children under ten had low participation overall (Owen, 1970). It appeared also that with an increased number of children, 'not enough free time' and 'family obligations' barriers came into play, most affecting the female in the parenting stage (Witt and Goodale, 1981).

Recommendation

That recreation service providers be cognizant of the fact that size of household may have the potential to generate barriers connected with participation.

(vii) Length of residence in Alberta

- there were no significant differences in desired activities between sub-groups of the sample defined on the basis of their length of residence in Alberta;
- the only meaningful difference in perceived barriers by length of residence was unawareness of where to participate in the desired activity among relative newcomers to the Province.

Implications

The barrier of most importance to relative newcomers to the Province was that of not knowing where to participate. In recent years, the Province of Alberta has been gaining in population through migration of individuals into the province. Thus, this barrier becomes very important when considering the marketing of the services to potential client groups. There is potential for a more rapid involvement of newcomers tothe province, which may be enhanced by target marketing this segment of the population.

In addition, if newcomers to Alberta can be assimilated more quickly into the community than they are at present, then this may alleviate some of the social problems experienced by this province. The recreation service provider should attempt to assess how many new users are brought into programmes compared to the number of regular users. That is, both the incidence and the prevalence of recreation participation must be identified. Newcomers to the service area could be located through such means as contacting Welcome Wagon committees, utility company connection services, etc.

Recommendation

That recreation service providers identify newcomers to the Province of Alberta in order that they might be made aware of what services are provided and where they are located.

g) Program Planning Considerations

An understanding of the reasons why people participate in leisure activities may assist practitioners in designing programmes to attract and retain participants. Results of the study conducted by Ontario Ministry of Culture and Recreation (1981 b) indicated that the reasons or conditions that motivated people to participate were interest in self improvement, social support and socializing opportunities, enjoyment of the activity, leadership initiatives from other people, and information about fitness and health.

Social support was very important even for activities people did by themselves. People often started physical activity programmes if someone else in the family or a friend was active. Even when they joined groups they seldom joined alone. People showed reluctance to take the first step and wanted interaction with others. They also did not want to be put in an awkward social situation and would use an activity programme to talk with and to meet other participants.

Perrin (1979) in his study on physical activity and participation, found that the following factors positively affected participation:enjoyment, health, weight control, self-challenge, socialization, relief of tension, and competition with others (p. 50). Involvement of family and friends in physical activity was considered the greatest motivator for new-exercisers, followed by the provision of information and guidelines for physical activity. Non-exercisers looked to organized opportunities, while new-exercisers considered facilities near home of greatest importance. This suggests the need for expanded opportunities and improved information dissemination services which inform people about what opportunities exist and where the facilities are situated.

For older persons, "contact with friends, change from work, to be creative and to achieve something" were the most important reasons for participation (Crandall, 1980).

People indicated that they wanted immediate enjoyment from the activity. It was suggested that instructors should be aware of this and not become overly preoccupied with the development of technique (Ontario

Ministry of Culture and Recreation, 1981 b).

Crandall (1980) summarized the following items as things people may be looking for in leisure:

- being with people;
- being with people of the opposite sex;
- being with friends;
- strengthening social relationships;
- meeting people of the opposite sex;
- getting away from people;
- solitude;
- being with family;
- meeting new people;
- getting away from family;
- strengthening family cohesion;
- having control over others;
- impressing others; and,
- helping others.

An understanding of key factors which may contribute to on-going participation in programs may also assist practitioners in developing or modifying their programs. Key factors in retaining participants were identified by Faulkner and Stewart (1978) and Franklin (1978):

- personal contact (the greatest influence in retaining participants);
- knowledge of results of progress;
- earning a T-shirt;
- follow up phone calls;
- self motivation and interest;
- the influence of friends;
- influence of spouse or doctor;
- instruction and encouragement;
- regular routine;
- freedom from injury;

- enjoyment - fun - variety;
- group camaraderie;
- progress testing and recording; and,
- spouse and peer approval.

Franklin (1978) also suggested that the most important positive force to increased participation was the group participation approach coupled with an enthusiastic leader.

The Ontario Ministry of Culture and Recreation (1981b) reported that the most important form of support for increased participation was encouragement from family friends followed by more convenient facilities for exercise. Encouragement was more important for younger people, and less so for older people, and those with less education and lower income.

Consideration of these factors in program planning may encourage on-going involvement by current participants, and may attract current non-participants to recreation programs.

CONCLUSION AND GENERAL RECOMMENDATIONS

The barriers to recreation participation, as noted in the above material, appear to lend themselves to two readily identifiable developments within recreation. The first of these developments is that of the place and use of leisure education and the second is that of marketing recreation services.

Leisure education is the education of the individual in a manner so that he/she is able to understand and find the place of recreation within his/her lifestyle and at the various stages of the lifecycle. Coupled with this is training the individual to assist him/herself to know what is personally meaningful within the realm of recreation, to develop the ability/skills to choose those experiences, and to know where and how they can be fulfilled.

From the examination of barriers and variables, many of the implications suggest that there is a role that leisure education can play in the reduction or elimination of barriers to recreation participation.

One of these areas is the reduction of barriers experienced by those of lower education status or lower income groups, or those at various age levels within our society. Leisure education deals with the individual and has the potential to assist him/her in dealing with recreation in a manner that is meaningful to the individual and positive within the confines of our society.

To this end, it is recommended that recreation service providers seriously consider the undertaking of leisure education programmes in conjunction with school authorities in order to direct programmes to: (i) the younger, compulsory school-aged population; (ii) employers, in particular, those dealing with the issues of pre-retirement and those offering leisure lifestyle counselling; (iii) service providers dealing with the aging population or the older adult; and (iv) service providers working in the area of rehabilitation. These are but a few of the populations groups that could be focused upon in the initial stages of leisure education programmes.

The second development apparent through the course of this study focuses upon the recreation service provider rather than the individual, as in the case of leisure education.

As the barriers to recreation participation were reviewed, particularly in relation to some socio-economic/demographic material, there was an indication that the recreation service provider should concern himself with the marketing of recreation services more readily and efficiently. In particular, the aspect of target marketing should be considered in dealing with the barriers experienced by newcomers to the Province, certain age groups who are not participating, low income groups, or certain special populations just to mention a few. The whole marketing question should also be considered in the framework of equity and equality particularly with respect to the present economic situation within Canada and what is anticipated to be a lower standard of living for Canadians, including Albertans, in the future.

It is therefore recommended that the recreation service provider acquire the necessary marketing concepts and skills through extension programmes, universities, colleges, business schools, etc. In addition, there should be the acquisition of further knowledge of the human service delivery system by the recreation provider in order to apply these marketing theories and techniques most effectively, and to reduce the barriers to recreation participation while keeping in mind the fulfillment of the individual and his/her positive functioning within society. Leisure education could be the focus of a comprehensive marketing programme which could combine the fulfillment of the needs of the individual (i.e., make recreation a major part of his/her life, enriching both self and society), and simultaneously make the service provider a viable and relevant entity as a partner in this process.

PART IV

STUDY CONSIDERATIONS

GENERAL DISCUSSION OF THE STUDY

The purpose of this study was to learn about the barriers which prevent people from participating in various forms of recreation, with emphasis on differential effects of barriers among desired recreational activities. The study also examined the characteristics of the people who desire these activities and how they differ in their perceptions of barriers. This task has been fulfilled to the extent that much has been learned about relationships between the relevant components of the Public Opinion Survey on Recreation, (1981), although it has been less successful in generating a multidimensional or more complex profile of non-participants and the associated barriers. The main findings from the analysis, and their limitations, were discussed in Part II of the report. Part III contains a summary together with a set of implications and recommendations for the service provider. Other more general study recommendations regarding the design of future comparable studies appear in Part IV.

As far as the main findings are concerned, it is clear that the effects of barriers to participation depend at least in part on the nature of the desired activity. Those who do not but would like to participate in downhill skiing, for example, tend to face economic barriers, while would-be racquetball and handball players are more severely affected by the overcrowding of facilities and the lack of partners with whom to participate. Similarly, the perceived severity of the barriers depends in part on the circumstances of the individual as measured with reference to socio-economic characteristics.

From this perspective, the most severely-disadvantaged segments of the population are the old, the poor, the less-well-educated, and single-parents; it was members of these groups who tended to evaluate the barriers as 'sometimes' or 'often a problem' for participation in their desired activity. Interestingly, it was also these groups, with the exception of single parents, who least frequently expressed a desire for a new recreational activity. Though at first sight this finding may appear inconsistent with the relatively severe effects of other barriers, it does suggest that these groups may have difficulty in perceiving or articulating recreational choices and in matching potential activities to their implicit recreational needs and motivations.

Isolating single variables in this manner may serve to obscure important potential interaction effects between variables. It was suggested, for example, that the apparent relationship between the desire for but non-participation in a new activity and length of residence in Alberta may be due, in part, to age differences between newcomers and established residents. Furthermore, the emphasis in this report on factors which distinguish between sub-groups of the sample should not be allowed to hide the considerable degree of consistency which existed among sub-groups in terms of their preferences for activities and perceptions of barriers. This was exemplified in the case of the almost uniform preference for exercise-oriented activities and the widespread high ranking given to barriers such as work commitments and overcrowding of facilities and areas. Obviously then, the strength or weakness of activity desires and perceived barriers between sub-groups are more relative than absolute.

Initially, it had been hoped that groupings of barriers to participation could be identified, based on dimensions such as economic factors or physical ability. The results, however, showed considerable variation between the barrier statements reflecting different aspects of these factors, especially in the case of the economic barriers, where equipment costs, and fees and charges outweighed the price of gasoline as obstacles to participation. Nonetheless, it is apparent that combinations of barriers, even if they do not appear to be intuitively related, rather than individual barriers alone, serve to restrict participation in any given type of activity or among any relatively homogeneous group of people. This, at any rate, is a conclusion which was reached on the basis of the scale of analysis conducted here. It may well be, however, that for some individuals, a single barrier represents an overwhelming obstacle to participation, but the level of analysis, used here was not conducive to examining this possibility.

It is clear from these and the rest of the results that the relationship between recreational non-participation and barriers to participation is not the outcome of a simple process. Rather, it is a complex phenomenon representing a function of many interacting factors, including interest in recreation per se, present participation expressed in terms of both types and rates of participation, the satisfaction of needs, the nature of the desired activity if any, the attributes of the individual, and, among other factors, the availability of and proximity to recreational resources and facilities.

A number of limitations of the study, analysis, and interpretation of results should be recognized, related to difficulties with basic concepts and their measurement, the reliance on bi-variate analysis, and the generalizations which must be made when a classification of recreational activities is used. As far as the first set of problems is concerned, it appears that the question dealing with non-participation may have been addressing two distinct aspects of the concept, namely non-participation per se and the desire to participate. At the most basic level, the first represents a negative aspect of recreation participation, the second a more positive aspect. From an analytical point of view, the confusion of the two concepts caused difficulty for a clear interpretation of results, if only because at least a proportion of respondents not expressing the desire to participate in a given activity may already have been doing so, although it was not possible, given the construction of the questionnaire, to distinguish these people from true non-participants. Also, given the construction of the questionnaire, it was possible to simply assume rather than measure lack of interest as a reason for non-participation.

There are also some possible limitations associated with the identification of barriers to participation. First, as noted above, it would have been useful to include "lack of interest" as an explicit reason for non-participating. Second, and related to this point, is the possibility that fifteen statements were inadequate to identify the full range of barriers to participation; a more complete list of barriers should be developed on the basis of the literature review presented in Part I. Third, it is not entirely certain that a "barrier to participation" is a concept identical to a "reason for non-participation", in the sense that a "barrier" may represent an obstacle over which the individual has relatively little control, while a "reason" is simply an explanation why something does or does not occur. Last, the response categories of "never", "sometimes", and "often a problem" may not be uniformly appropriate to all barriers or reasons statements. For example, family or work commitments may inhibit participation in various degrees at various times, whereas barriers such as physical inability or lack of opportunity prevent participation, with no varying degrees of effect.

Given these comments, it is clear that future research in this area will require a precise articulation of the basic concepts involved, and the construction of alternative indicators and questions with which to measure them. It might also be useful to develop a detailed and comprehensive hypothetical model to identify the key elements in the process of non-participation interrelating them in such a way as to generate questions and frameworks for analysis.

A second limitation of the present study is concerned with the impossibility of providing a statistical synthesis of interrelationships between variables based on multi-variate analysis, due to limitations of sample size. The reasons for this have been discussed in considerable detail earlier in the report, and need not be repeated here. Nonetheless it is worth reiterating that no certain conclusions could be made as to precisely which barriers inhibited participation in specific activities among relatively homogeneous sub-groups of the sample. It was therefore possible to provide only a verbal summary based on the two-variable relationships examined during the statistical analysis.

The last limitation concerns the use of a classification of recreational activities, and in particular the amended classification employed in this study. Because the array of listed activities differed both in scope and in the number of mentions per activity from the classification utilized in, the earlier study - Recreational Activity Preferences, Reasons for Participating and the Satisfaction of Needs by

Edgar Jackson, March 1982, the results from that and the present study are not strictly comparable. In one respect the fact that the classification had to be amended was beneficial in that sufficient numbers of respondents mentioned racquetball/handball and tennis to allow for separate consideration of these activities, which was not possible in the previous study. On the other hand, the collapsing of several previously distinct categories of activity may have resulted in the obscuring of potentially important differences between specific recreational activities. Given the small numbers involved, however, this effect could not be avoided.

GENERAL STUDY RECOMMENDATIONS

Several recommendations follow from the main findings and limitations summarized above. First, it would be desirable to conduct at least one follow-up survey based on a broader and more detailed range of questions, these in turn being defined with reference to a clear articulation of and distinction between the essential concepts. Secondly, the survey should be sufficiently large to permit a multi-variate analysis of the data in order to construct more complex profiles of non-participants and their perceptions of associated barriers. Thirdly, it would be useful to broaden the focus of interest to include not only barriers to recreation participation but also barriers to recreation enjoyment or satisfaction. This is an aspect which is also receiving attention in recreation research literature, and may increase our understanding of recreation behaviour among participants and non-participants alike. Lastly, in-depth interviews should be conducted with representatives of those population sub-groups who have been shown in this report to be the most disadvantaged with regard to their access to and participation in recreation. Detailed information of this kind would be a useful complement to the rather more superficial type of conclusions and recommendations which are possible from a large-scale sample survey.

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